

START HERE GUIDE

The Beginner's Peptide Guide

A visual guide to understanding peptides, research, measurements, reconstitution, schedules and storage — starting from zero.

19

COMPOUNDS
EXPLAINED

6

RESEARCH
CATEGORIES

1

FREE DOSE
CALCULATOR



What's inside

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JUMP STRAIGHT TO A COMPOUND — TAP A NAME TO GO THERE

Tirzepatide

Semaglutide

Retatrutide

Cagrilintide

BPC-157 + TB-500

GLOW

KLOW

CJC-1295 + Ipamorelin

Tesamorelin

Somatropin (HGH)

GHK-Cu

SS-31 (Elamipretide)

MOTS-c

NAD+

Glutathione

5-Amino-1MQ

MT2 (Melanotan II)

Semax

Selank

19

Compounds covered. Doses, timelines and safety notes come from the Nova Biolabs member guide. Where a figure is an estimate, the page says so.

Welcome

How to use this guide

This guide assumes you know nothing about peptides yet. Read the basics once, then use the contents page to jump to your compound. Every compound page has the same layout, so once you can read one you can read them all. **Tap any name or page number on the contents page (page 2) to jump straight there.**

PLEASE READ THIS FIRST

This guide is a starting point, not the final word. We strongly recommend doing your own thorough research beyond this guide on anything you're considering.

Always speak to a healthcare professional if you're unsure. For laboratory research use only — not medical advice.

HOW TO USE THIS GUIDE

01

New to peptides? Start here

Read these pages once, in order: what a peptide is, the vial, measurements, the maths, what you need, mixing a vial, drawing a dose, what to expect and titration.

PAGES 4–16

02

Ready to find your compound?

Start with your goal (page 20) or tap a name on the contents page. Each compound has a plain-English summary, a dose table, dosing steps and what it stacks well with. Page 17 shows how to read one.

PAGES 20–45

03

Before you open your first vial

Check what you need (page 11), how to mix it (page 12), what to do if it goes cloudy (page 13), how to store it (page 18) and the 28-day rule (page 19). The free calculator does the dose maths for you.

PAGES 11–15

04

Stuck on a word or a number?

Compare all 19 compounds side by side (page 46), check the FAQ (page 47), look a word up in the glossary (page 49) or keep track in your dose log (page 50).

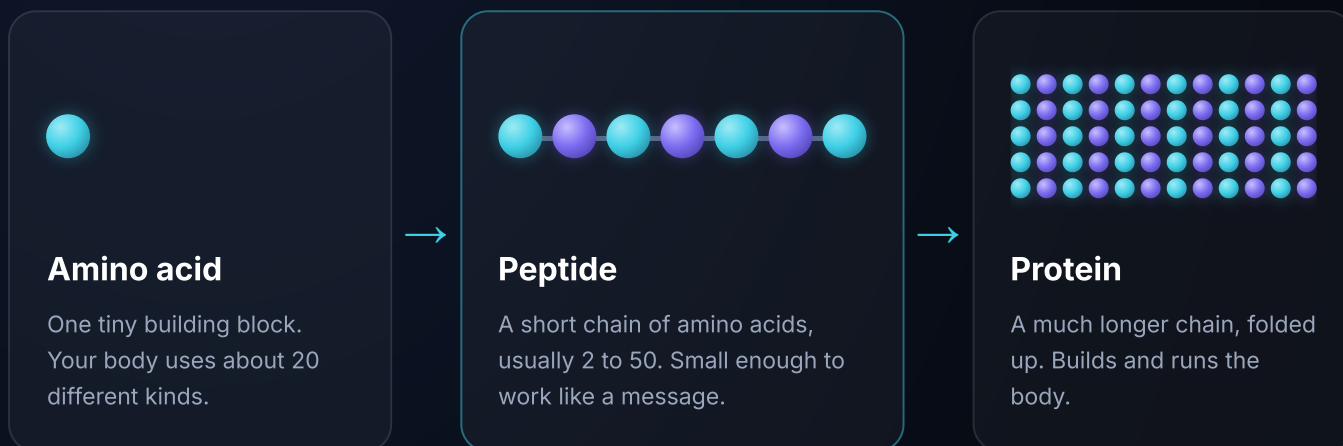
PAGES 46–50

One more time: do your own research. Everyone's body and history is different, so read beyond this guide on anything new and have a chat with a healthcare professional before you act on it. For laboratory research use only; not medical advice.

What actually is a peptide?

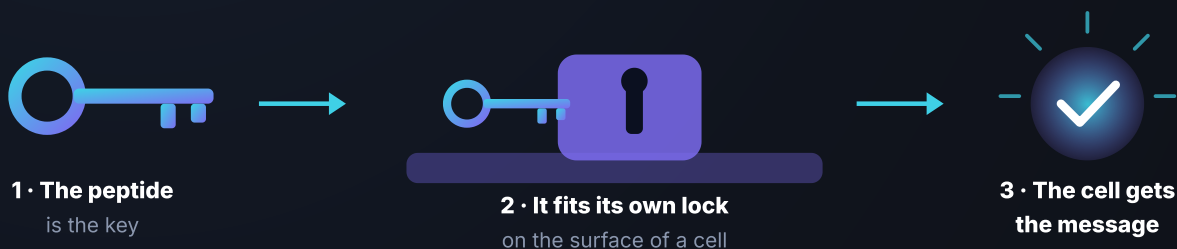
Peptides are **tiny chains of building blocks** called amino acids. Your body makes thousands of them and uses them as short messages:

"you're full", "repair this", "release that hormone".



HOW A PEPTIDE WORKS

Like a key fitting a lock



Your cells have tiny locks. Scientists call them receptors. Different receptors respond to particular biological signals — a bit like locks recognising the right keys.

Different peptides fit different receptors. A peptide can bind to a compatible receptor on a cell, helping explain why different peptides produce very different effects.

Binding can trigger a message. Activating a receptor starts a signalling process that can influence appetite, metabolism, growth or tissue function.

WHY DOSING IS DIFFERENT

Some peptides are dosed daily, others weekly — why?

Your body clears its own natural peptides in minutes and just makes more. Lab-made versions are tweaked to last longer so they have time to work — the longer one lasts, the less often you need it. Not strength: lasts hours → daily (SS-31, Semax); lasts days → weekly (Tirzepatide, Semaglutide).

Where this guide fits. The compounds in this guide are lab-made copies or close relatives of natural signals like these. Each compound page explains, in plain English, which one it works on.

A few compounds in this guide, like NAD⁺ and 5-Amino-1MQ, are small molecules rather than true peptides. They're included because they're researched alongside them.

Peptides are all around you

Peptides aren't exotic. They're in the food you eat, they're made by your own body, and researchers are studying them for a surprisingly wide range of jobs.

YOU ALREADY EAT THEM

- Eggs
- Milk
- Meat
- Fish & shellfish
- Beans & lentils
- Soy
- Oats
- Flaxseed
- Hemp seeds
- Wheat

Peptides occur naturally in protein-rich foods like these. Because they're smaller than proteins, the body can often take them in more easily, and many supplements use peptides taken from the same sources.

YOUR BODY MAKES THEM TOO

Insulin

SUGAR CONTROL

Tells your cells to take in sugar from your blood.

GLP-1

FULLNESS

Tells your brain you've eaten enough. Several compounds in this guide copy it.

Oxytocin

BONDING

Sometimes called the bonding hormone. Involved in trust and childbirth.

THE ONES SCIENTISTS GET MOST EXCITED ABOUT

Bioactive peptides are peptides with a beneficial effect on the body. Which job each one does depends on the order of its amino acids. Research suggests they may:

- Support healthy blood pressure
- Fight microbes
- Calm inflammation
- Help prevent blood clots
- Support the immune system
- Act as antioxidants

WHAT PEOPLE USE THEM FOR

Skin & ageing

Collagen is the protein that keeps skin, hair and nails healthy. Collagen peptides are collagen broken down so the body can absorb it easily. Reviews from 2022 and 2023 suggest they may help reduce or delay skin ageing.

Wound healing

Collagen is vital for healthy skin, so collagen peptides may help wounds heal faster. Researchers are also studying antimicrobial peptides as a possible answer to antibiotic-resistant bacteria.

Strong bones

Studies suggest collagen peptides can raise bone density in postmenopausal people with reduced bone density, and a longer-term follow-up found the same.

Muscle & strength

Studies from 2019 and 2022 found that peptide supplements plus resistance training built more strength and muscle than exercise alone. Growth-hormone-releasing peptides work by prompting your body to release its own growth hormone (see page 30).

Research is still developing. Many of these findings are early, and more research is needed to confirm the benefits and the risks. Everything in the rest of this guide is for laboratory research use only. Background: Medical News Today, "What to know about peptides for health" (2026).

What's in the vial?

Your peptide arrives sealed in a small glass vial like this one. Every part has a job — and once you know what you're looking at, the rest of this guide gets much easier.



Rubber stopper

Sealed and sanitised before each draw with an alcohol swab.

Glass vial

Holds the compound, protected from air and contamination.

Lyophilised material

Freeze-dried — this is why compounds arrive as a powder rather than a liquid.

Reconstitution

Adding a liquid to that powder to turn it back into something you can draw up.

Why is it powder? Many research peptides are supplied freeze-dried, or "lyophilised". Removing the water makes the material far more stable to store — it only becomes a liquid once you add a mixing liquid.

The five measurements you'll see **most**

mg

MILLIGRAM

A measure of mass — how much compound, by weight.

mcg

MICROGRAM

1,000 times smaller than a milligram.

mL

MILLILITRE

A measure of liquid volume — not how much compound.

Units

SYRINGE SCALE

The markings on a U-100 insulin syringe: 100 units = 1 mL. Not the same thing as IU.

IU

INTERNATIONAL UNIT

A measure of biological *activity*, not weight. **HGH is dosed in IU, not mg.** IU can't be converted to mg without knowing the exact compound, so always use the unit written on that compound's page.

1 mg = 1,000 mcg. mg and mcg are easy to mix up on paper but are 1,000 times apart in reality — always double-check which one a dose is written in before you draw anything up.

Mass and liquid are not the same thing

10 mg

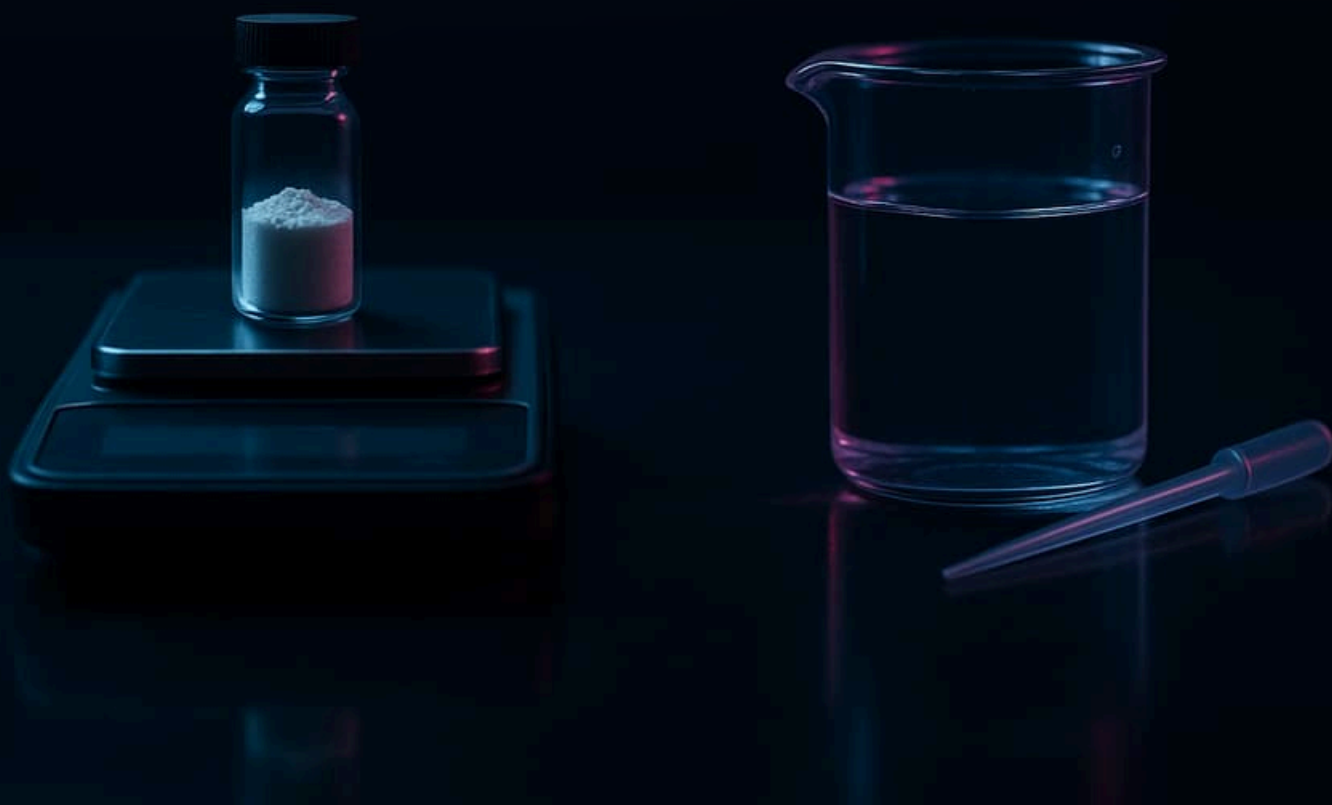
HOW MUCH COMPOUND

2 mL

HOW MUCH LIQUID

10 mg + 2 mL does **not** mean 12 of anything.

Combining the two. Mass and volume together create a **concentration** — how much compound is packed into each millilitre of liquid. That's the next page.



What does **concentration** mean?

Think of squash: the same amount of concentrate mixed with less water is stronger; mixed with more water, it's weaker. Peptide concentration works the same way.

10 mg

VIAL

+

2 mL

BAC WATER

=

5 mg/mL

Concentration

In practice

Every 1 mL of the mixed solution contains 5 mg of compound. Concentration is simply **how much compound is in each millilitre of liquid**: mg in the vial ÷ mL of water added.

SAME VIAL, DIFFERENT AMOUNTS OF WATER

A 10 mg vial mixed three ways


10 mg/mL

1 ML WATER

Strong

5 mg/mL

2 ML WATER

Standard

4 mg/mL

2.5 ML WATER

Weaker

The vial always holds the same 10 mg of compound. Adding more water just spreads it out, so each mL is weaker.

WHY IT MATTERS AT THE SYRINGE

A 250 mcg (0.25 mg) dose from that same vial

WATER ADDED	CONCENTRATION	DRAW TO
1 mL	10 mg/mL	2.5 units
2 mL	5 mg/mL	5 units
2.5 mL	4 mg/mL	about 6 units

More water means a bigger, easier-to-read draw. That's why 2 mL is the most common choice. Your dose doesn't change — only where you draw to.

Bigger vial? Add proportionally more water: ~2–2.5mL for 20mg, ~2.5–3mL for 40mg, ~3mL for 60mg — or use the calculator.

FREE TOOL



Skip the maths: use the Nova dosage calculator

Enter your vial size, the water you added and your dose. It shows exactly where to draw on a U-100 syringe.

[Open the calculator →](#)

Doing the maths: vial to syringe

Three quick steps turn any vial and dose into a mark on the syringe. Or skip straight to the calculator at the bottom of the page.

THE MATHS IN THREE STEPS

1

Concentration = vial mg ÷ water mL

How strong the liquid is.

$$10\text{mg} \div 2\text{mL} = 5\text{mg/mL}$$

2

Volume = dose ÷ concentration

How much liquid holds your dose (convert mcg to mg first).

$$0.25\text{mg} \div 5\text{mg/mL} = 0.05\text{mL}$$

3

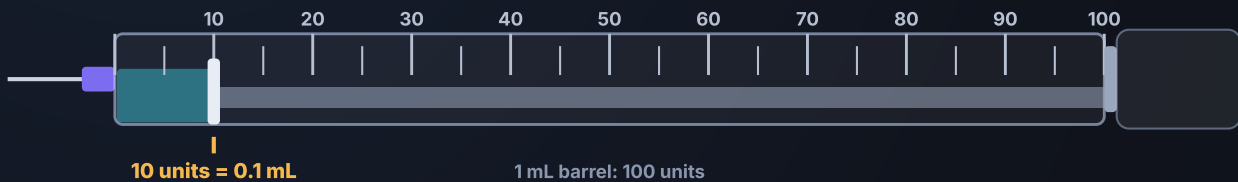
Units = mL × 100

Turn the volume into marks on the syringe.

$$0.05 \times 100 = 5 \text{ units}$$

ON THE SYRINGE

A 10-unit draw is one-tenth of a 1 mL barrel



WORKED EXAMPLES

20mg vial — 1mg dose

Add 2mL BAC water = 10mg/mL

Draw **10 units (0.1mL)**

10mg vial — 500mcg dose

Add 2mL BAC water = 5mg/mL

Draw **10 units (0.1mL)**

30mg vial — 500mcg dose

Add 2mL BAC water = 15mg/mL

Draw **3.3 units (0.033mL)**

QUICK REFERENCE

Concentration by vial size and water added

VIAL	1 ML WATER	2 ML WATER	2.5 ML WATER
5mg vial	5 mg/mL	2.5 mg/mL	2 mg/mL
10mg vial	10 mg/mL	5 mg/mL	4 mg/mL
20mg vial	20 mg/mL	10 mg/mL	8 mg/mL
30mg vial	30 mg/mL	15 mg/mL	12 mg/mL



FREE TOOL

Let the calculator do the maths

Enter your vial size, water and dose to get the exact syringe mark instantly.

[Open the calculator →](#)

Your starter kit

Gather everything before you open a vial. It makes mixing calmer, cleaner and safer. Here is the full list, and what each item is for.



Your peptide vial

The dry powder. Check the label matches what you ordered, and that the vial is sealed and undamaged.

INCLUDED



Bacteriostatic water

The mixing liquid: sterile water with 0.9% benzyl alcohol to keep the vial safe to reuse for 28 days. Not plain water.

BUY BACTERIOSTATIC WATER →



1 mL syringes

We advise a 1 mL (100-unit) insulin syringe for everything: adding the water and drawing every dose. Its marks are easy to read (1 unit = 0.01 mL). Always use a new, sterile syringe.



Alcohol swabs

To wipe both vial stoppers before every puncture, and the skin before an injection.



A sharps container

A rigid, puncture-proof container with a lid, for used needles and syringes. Never put them loose in the bin.



Fridge space

Main body of the fridge at 2–8°C, away from light. A peptide storage case keeps vials together and dark.

SEE THE STORAGE CASE →



Marker and labels

Write the compound, concentration, date mixed and discard-by date on every mixed vial.



The free calculator

Turns your vial size, water and dose into an exact syringe mark. No maths needed.

OPEN THE CALCULATOR →

BEFORE YOU START, CHECK

- ✓ **The vial is sealed** with an intact stopper and no cracks.
- ✓ **The label matches** the compound and size you ordered.
- ✓ **The batch number** matches the certificate of analysis (page 48).
- ✓ **The powder looks normal**: a small white or off-white cake or dusting.

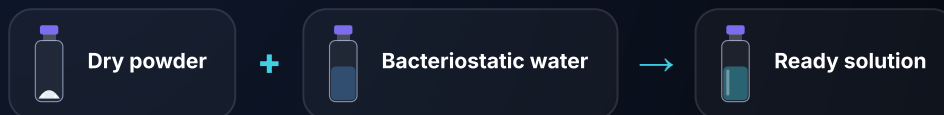
NEVER

- ✗ **Reuse or share** needles or syringes, even your own.
- ✗ **Use plain water** or anything other than bacteriostatic water.
- ✗ **Prepare on a dirty surface**. Wash your hands and wipe the surface first.
- ✗ **Use a damaged vial**, or one that arrived warm and was left out.

New to this? If you have never handled needles or syringes before, ask a healthcare professional or pharmacist to show you, or watch a demonstration video, before you begin.

How to reconstitute a peptide, step by step

Reconstitution simply means adding a liquid to the dry powder so it becomes a solution you can draw into a syringe. Use **bacteriostatic water** — sterile water with a small amount of preservative (0.9% benzyl alcohol) — not plain sterile water, so the mixed vial lasts 28 days.



CLEAN

SLOW

GENTLE

COLD

1

Set up clean, let it warm up

Wash your hands, wipe your surface and lay everything out. Let the peptide vial and the water reach room temperature — mixing cold liquids can cause cloudiness.

2

Sanitise both vial tops

Wipe both rubber stoppers with a fresh alcohol swab and let them air-dry a few seconds — wiping through wet alcohol can push it through.

3

Equalise pressure, draw the water

With your 1 mL syringe, draw 1 mL of air, inject it into the water vial, invert and draw up to 1 mL of water. Adding 2 mL, the most common amount? Do it in two 1 mL draws.

4

Add water down the glass

Hold the needle at roughly 45° against the inside wall, just above the powder. A hard direct stream damages the peptide and whips up foam.

5

Swirl gently — never shake

Roll the vial slowly between your fingers until every trace of powder is gone. Shaking can break down the peptide's structure.

6

Check it's clear

Hold it up to a light. It should be clear with no floating particles. If it isn't, see the next page before you use it.

7

Label it, then refrigerate

Write the compound, concentration and date mixed. Store at 2–8°C, use within 28 days, never refreeze (see page 19).

8

Draw every dose carefully

Use the free calculator at novabiolabs.co.uk/calculator to turn your dose into a syringe mark. Fresh swab on the vial top before every draw.



Step 4 · Down the wall

Let the water trickle down the glass instead of blasting the powder.



Step 5 · Swirl, don't shake

Slow rolling between your fingers. Patience beats force.



Step 6 · Hold to the light

Clear and colourless with nothing floating is what you're looking for.

How much water? The amount you add sets your concentration — see page 9 for how it works, or let the free calculator do the maths: novabiolabs.co.uk/calculator.

Why a vial can go cloudy

Cloudiness is one of the most common things people notice after mixing. It happens often, and the reason is simple: **peptides are fragile molecules**. Cold liquids, heat, rough handling, time and contamination can all nudge one out of solution — so a quick look before every draw is part of the routine.

WHAT YOU MIGHT SEE



GOOD TO USE

Clear

Clear and colourless, nothing floating. This is what a properly mixed vial looks like.



GIVE IT TIME

Slightly hazy

Often just not fully dissolved yet, or a cold vial. Rest it and swirl gently — see below.



DO NOT USE

Cloudy, flakes or strings

Milky, stringy, particles floating, or a colour change that doesn't clear on resting.

WHY PEPTIDES ARE FRAGILE — THE USUAL CAUSES

Cold liquids

Mixing a cold vial with cold water is a very common cause. Let both reach room temperature first.

Rough mixing

Shaking or a hard jet of water foams the solution and can make the peptide clump. Swirl gently instead.

Heat and light

Warm vials break down faster. Left out on a counter, in a hot car or in sunlight, a peptide degrades sooner.

Freezing after mixing

Ice crystals can damage the peptide as it freezes and thaws. Once mixed, never refreeze.

Time in liquid

Water lets the peptide slowly break down. The longer it sits mixed, the more likely it clouds — this is the 28-day rule (page 19).

Contamination

Bacteria cloud a vial. Every needle puncture is a chance to let them in, so a fresh swab before each draw matters.

WHAT TO DO

STEP 1

Rest and swirl

Leave it a few minutes at room temperature, then swirl gently. Some peptides just take longer. Never shake to speed it up.



STEP 2

Look again

Hold it to a light. Fully clear with nothing floating? You're fine to carry on.



STEP 3 · IF STILL CLOUDY

Don't use it

Discard it, note the batch number and contact Nova support through novabiolabs.co.uk. Don't use a vial that stays cloudy.

Foam on top after mixing?

Normal — leave it a few minutes. Lots of foam means add the water more slowly next time.

Tiny rubber pieces inside?

The needle has sliced a piece from the stopper ("coring"). Discard that vial rather than filtering it.

When in doubt, throw it out. A discarded vial is a small loss. Cloudiness is common and rarely a sign you did anything badly — but a cloudy vial that doesn't clear is never worth using.

Drawing a dose and injecting safely

Once your vial is mixed and clear, this is the routine for each dose. Slow and clean is always better than fast.

1

Get ready

Wash your hands and wipe your surface. Take the vial from the fridge and check it is clear (page 13). Wipe the stopper with a fresh swab and let it dry.

2

Draw air first

Pull the plunger back to your dose mark so the syringe fills with that much air. Use the calculator to find your mark: novabiolabs.co.uk/calculator.

3

Push the air in

Insert the needle through the stopper, push the plunger to inject the air, then turn the vial upside down. This stops a vacuum building.

4

Draw the dose

Slowly pull the plunger back to your mark. Tap out any large bubbles, push them back in and re-check the mark, reading at the edge nearest the needle.

5

Pick your site

Choose a spot on the abdomen, front of the thigh or back of the upper arm (below). Wipe it with a swab and let it dry. Change site every time.

6

Inject slowly

Pinch a fold of skin, insert the needle just under the skin (about 45–90°), push the plunger slowly, wait a few seconds, then withdraw.

WHERE TO INJECT (SUBCUTANEOUS)



Just under the skin, into the fatty layer (subcutaneous): the route for almost every compound here. A few pages also mention intramuscular (muscle) or IV routes, which need hands-on training from a healthcare professional and are not covered. **Abdomen:** keep about 5 cm from the belly button. **Thigh:** front and outer. **Upper arm:** back of the arm.

ROTATE YOUR SITES

- ✓ **Why it matters:** injecting the same spot repeatedly can cause lipohypertrophy — lumpy, thickened tissue under the skin — which changes how a dose absorbs and can make dosing unpredictable.
- ✓ Move at least 2.5 cm from the last spot each time.
- ✓ Cycle around the abdomen, both thighs and both arms.
- ✓ Avoid bruised, sore, scarred or reddened skin.

AFTERWARDS

- ✗ Put the used syringe straight into the **sharps container**. Don't recap or reuse it.
- ✗ Don't rub the site hard. Light pressure is fine.
- ✗ Return the vial to the fridge and note the date.

Take your time. If you are unsure at any stage, stop and ask a healthcare professional or pharmacist to show you. Nobody minds being asked.

What to expect, and when to stop

Most people notice little or nothing at first, and any early effects are usually mild. Knowing what is normal, and what is not, helps you stay safe. This is a general guide, not a complete list and not medical advice.

OFTEN REPORTED, USUALLY MILD

Any injection

- Small redness, itch or bruise at the site
- Mild headache
- Feeling tired

Weight-loss compounds

- Feeling full quickly, less appetite
- Nausea, constipation or loose stools
- Often eases as your body adjusts to each step up

Growth-hormone compounds

- Flushing or a warm feeling
- Tingling hands, water retention
- Headache or joint aches

PAUSE AND SPEAK TO A HEALTHCARE PROFESSIONAL IF YOU NOTICE

• Vomiting or stomach pain that doesn't settle

• A site that gets more red, hot, swollen or has pus

• Fever or feeling generally unwell

• Dizziness or fainting

• Severe headache or changes in vision

• New or changing moles (especially with MT2)



Call 999 straight away if you have

Swelling of the face, lips, tongue or throat, difficulty breathing, a widespread rash or hives, chest pain, or you feel faint. These can be signs of a severe allergic reaction. Do not wait.

TAKE EXTRA CARE, AND SPEAK TO A HEALTHCARE PROFESSIONAL FIRST, IF YOU

Are pregnant or breastfeeding

Take any medication, especially for diabetes

Have active cancer, or a personal or family history of it

Have diabetic eye disease

Have thyroid cancer in the family (weight-loss compounds)

Have a history of seizures or anxiety (Semax)

Have melanoma in the family or changing moles (MT2)

Have any allergy to the ingredients

Have a long-term health condition

Your compound's own cautions. Each compound page has a source-guide note, and the quick comparison on page 46 lists who should check with a professional first. If in doubt, stop and ask. Research use only; not medical advice.

What is titration?

Titration means **stepping a dose up gradually**, on a set schedule, instead of starting at the full amount. Think of it as climbing a staircase rather than jumping to the top floor.

WORKED EXAMPLE FROM THIS GUIDE

Tirzepatide — a classic step-up ladder

1 INJECTION A WEEK

MAX DOSE



WHY STEP UP SLOWLY?

1

Time to adjust

A new dose is a change for your body. Small steps give it time to settle before the next one.

2

Find your level

Bigger isn't automatically better. The top dose in a table is a ceiling, not a target.

3

Easy to trace

Change one thing at a time and you always know which step made the difference.

FOUR SHAPES OF SCHEDULE YOU'LL MEET IN THIS GUIDE

STEP-UP LADDER



Semaglutide

0.25 → 0.5 → 1 → 1.7 → 2.4mg,
a step every 4 weeks.

RAMP, THEN HOLD



HGH (dosed in IU)

1 IU in week 1, 2 IU in weeks 2-3, then 2-4 IU to hold.

STEADY DOSE



SS-31, GHK-Cu and most others

The same dose from day one, for a set cycle of weeks.

SHORT COURSE



Semax and Selank

A short run of roughly 10-20 days, then a break.

Every peptide has its own titration schedule. Some step up slowly, some ramp then hold, some never change and some are short courses. The exact doses and timings for each one are in the dosing table on that peptide's own page (pages 22-45). Follow that page's schedule, and check the unit: mg, mcg or IU (see page 7). **If side effects show up at any step, stay at that dose** — only step up once they've settled, even if that takes longer than the table suggests.

How to read a compound page

Every one of the 19 compound pages follows exactly this layout. Learn it once and you can read them all.

1 The title block

Compound name, category and a one-line description of what it is.

2 Quick stats

Your starting dose (week 1), how often you dose (EOD = every other day) and how long a cycle runs: a block of weeks, often followed by a planned break.

3 What it does, in plain English

A short, jargon-free explanation of how it works.

4 What it's researched for

The goals it is studied for, such as weight loss or repair, as four short cards.

5 Dosing protocol

Numbered steps plus a week-by-week titration table ("first dose" is what you start on in week 1). The dose is the same whichever vial size you buy.

6 Good to know

Trial results or extra facts worth knowing.

7 Stacks well with

Other compounds that are often studied alongside it for a combined goal. Tap one to jump to its page.

8 Footer

Where to find storage (page 18) and safety checks (page 46), plus a link to that product on the Nova site.

1

Tirzepatide
 Peptide User Guide
 APPETITE CONTROL · METABOLIC HEALTH · CLINICALLY PROVEN
WEIGHT LOSS
 A once-weekly compound that copies two of your body's natural "I'm full" hormones at the same time.

2

STARTING DOSE
2.5mg
FREQUENCY
Weekly
CYCLE
12-72 wks

3

What it does, in plain English
 After you eat, your gut releases hormones that tell your brain you're full and help control blood sugar. Tirzepatide mimics two of them, so it's researched for lower appetite, weight loss and steadier blood sugar.

4

WHAT IT'S RESEARCHED FOR

DUAL-PATHWAY ACTION
 Acts on two separate hunger and metabolism signals at once.

BLOOD SUGAR BALANCE
 Supports healthy insulin sensitivity and glucose control.

CLINICALLY PROVEN
 Backed by SURMOUNT-1, one of the largest trials in this guide.

APPETITE CONTROL
 Researched for reduced appetite and food intake.

5

DOSING PROTOCOL
 MAX DOSE 15MG, TARGET VARIES BY PROTOCOL

1

INJECTIONS
 Once-weekly injections, increasing every 4 weeks.

2

DURATION
 12-72 weeks, protocol dependent.

3

RECONSTITUTION
 Draw depends on your vial — see novabiolabs.co.uk/calculator.

4

INJECTION SITES
 Abdomen, thigh, or upper arm. Rotate sites.

WEEK	DOSE
Wks 1-4	2.5mg
Wks 5-8	5mg
Wks 9-12	7.5mg
Wks 13-16	10mg
Wks 17-20	12.5mg
Wk 21+ Maintenance	15mg

SOURCE-GUIDE NOTE
 Maximum ≠ target — many people plateau comfortably below 15mg. Use the calculator at novabiolabs.co.uk/calculator for your specific vial.

6

GOOD TO KNOW

SURMOUNT-1 (NEJM, 2022)
 Mean 22.5% total body weight reduction at 15mg over 72 weeks.

TWO SIGNALS AT ONCE
 Copies two natural fullness hormones (GIP and GLP-1) together, unlike single-signal compounds.

7

STACKS WELL WITH
 FROM NOVA'S PRODUCT PAGES · TAP TO JUMP

MOTS-c
ENERGY & METABOLISM
 Studied for how cells use energy. A common pairing with GLP-1/GIP research.

5-Amino-1MQ
FAT-CELL FOCUS
 Targets fat-cell metabolism: a different route to the same weight-loss goal.

BPC-157 + TB-500
RECOVERY
 Repair peptides are often studied alongside long appetite-suppression programmes.

8

RESEARCH USE ONLY · STORAGE: PAGE 15 · SAFETY CHECKS: PAGE 43 · [NOVABIOLABS.CO.UK/TIRZEPATIDE-10MG.HTML](https://novabiolabs.co.uk/tirzepatide-10mg.html)

Once you've seen one. Every compound page later in this guide follows exactly this structure, so once you've seen one you can navigate all of them.

Storage basics

Peptides are fragile. How you store them decides whether they still work on the day you use them — and it comes down to three things: cold, dark and time.

DRY POWDER · SHORT TERM

2–8°C fridge

Fine while you're using a vial over the coming weeks. Keep it in the main body of the fridge, not the door shelf.

DRY POWDER · LONG TERM

–20°C freezer

Yes, unmixed powder can go in the freezer, and it's the best choice if you're keeping vials for months. Let a vial reach room temperature before you mix it.

AFTER MIXING · IN SOLUTION

2–8°C 28 days

Once water is added the clock starts. Fridge only, use within 28 days, and never freeze it. See page 19 for why.



Keep every vial away from light.

Light and heat break peptides down. Whether it's dry or mixed, in the fridge or the freezer, keep it in its box or a dark drawer, never on a windowsill or in sunlight.

EXCEPTIONS

SS-31 should be stored at –20°C before mixing. The fridge is not enough for it — see its own page.

Once a vial is mixed, it goes in the fridge and stays there. **Never put it back in the freezer, even briefly** — freezing and thawing damages the peptide for good.

DO

- ✓ **Use the main body of the fridge.** A steady temperature protects the peptide.
- ✓ **Stand vials upright, cap on.** Keeps the stopper clean and dry.
- ✓ **Write the date you mixed it.** The 28-day clock starts there.
- ✓ **Keep it away from light.** Store in the box or a dark drawer.
- ✓ **Use a fresh swab before every draw.** Every puncture is a chance for contamination.

DON'T

- ✗ **Don't use the door shelf.** It swings warm every time it opens.
- ✗ **Don't freeze it once mixed.** Freezing and thawing can damage the peptide.
- ✗ **Don't leave it out.** Counters, hot cars and sunlight speed up breakdown.
- ✗ **Don't shake or knock it about.** Rough handling can make it clump and go cloudy.
- ✗ **Don't use it past day 28.** Potency and sterility can no longer be counted on.

Weekly compounds · missed a dose?

Within 2 days, take it as normal. Later than that, skip and resume next week.

Daily compounds · missed a dose?

Take it as soon as you remember, unless it's nearly time for the next one.

EOD · missed a dose?

Take it as soon as you remember, then shift the pattern forward from today.

Short course · missed a dose?

One missed day is fine. 3+ days missed? Restart from day one.

Missed a dose? If in doubt, it's always safer to restart at the lowest dose than to guess.

The 28-day rule for a mixed vial

Once you add water to a peptide, the clock starts. Keep the vial in the fridge and use it within **28 days** — four weeks, easy to count. You'll also see 30 days quoted; both are cautious rules of thumb, and this guide uses 28.

YOUR VIAL'S 28 DAYS

WEEK 1	1	2	3	4	5	6	7
WEEK 2	8	9	10	11	12	13	14
WEEK 3	15	16	17	18	19	20	21
WEEK 4	22	23	24	25	26	27	28

Day 1: mixed, labelled and in the fridge

Day 28: last day of use

Day 29 onwards: discard



WHY IT'S A RULE

We put safety first

Nobody can tell by looking at a mixed vial whether it is still fully reliable. Bacteria can start to grow and the peptide can slowly break down, while the liquid still looks perfectly clear. So instead of asking you to guess, Nova Biolabs takes a safety-first approach: **one cautious, easy-to-follow limit**. If in doubt, we'd always rather you discard a vial early than use one you can't vouch for.

THE REASONS BEHIND IT

01

Water starts the clock

Dry powder is stable. In liquid, a peptide slowly breaks down, so it loses strength with time even in the fridge.

02

Every needle stick counts

Each draw pierces the stopper and can let microbes in. Bacteriostatic water slows their growth but doesn't make a vial sterile.

03

Warmth shortens it

28 days assumes a steady 2–8°C. A vial left out, heated or cloudy at any point is finished sooner — don't wait for day 28.

MAKE IT EASY TO FOLLOW

Write two dates

On the label: the day you mixed it and the "discard by" date, 28 days on.

Set a reminder

A phone alert for day 27 means you never have to remember the count.

Check the maths

Work out how many doses a vial gives you (page 9) and make sure they fit inside 28 days.

Longer than 28 days? Start a fresh vial each month.

An 8-week BPC-157 or GHK-Cu course outlasts one vial — that's expected. Mix a new vial once the old one hits its discard date and carry on. Don't top up an old vial or combine leftovers.

Applies to the mixed vial only. Unmixed powder is stored dry in the fridge and isn't on the 28-day clock.

What's your goal?

Start with what you want to learn about, then tap a compound to jump straight to its page. Each page ends with other compounds it is often studied alongside.

Lose weight or reduce appetite

Compounds that copy natural "I'm full" signals, plus one aimed at fat-cell metabolism.

[Tirzepatide →](#)
[Semaglutide →](#)
[Retatrutide →](#)
[Cagrilintide →](#)
[5-Amino-1MQ →](#)

Recover and repair

Peptides researched for helping tendons, muscle, joints and other tissue heal.

[BPC-157 + TB-500 →](#)
[GLOW →](#)
[KLOW →](#)

Skin and healthy ageing

Copper peptide and antioxidant compounds researched for skin, collagen and cell protection.

[GHK-Cu →](#)
[GLOW →](#)
[KLOW →](#)
[Glutathione →](#)

Body composition and growth hormone

Compounds that prompt your body to release its own growth hormone, or replace it directly.

[CJC-1295 + Ipamorelin →](#)
[Tesamorelin →](#)
[Somatropin \(HGH\) →](#)

Energy and longevity

Compounds researched for cell energy and how cells age, centred on the mitochondria.

[NAD+ →](#)
[SS-31 →](#)
[MOTS-c →](#)
[Glutathione →](#)

Focus or calm

Two short peptides from Russia: one stimulating and focus-boosting, one calming.

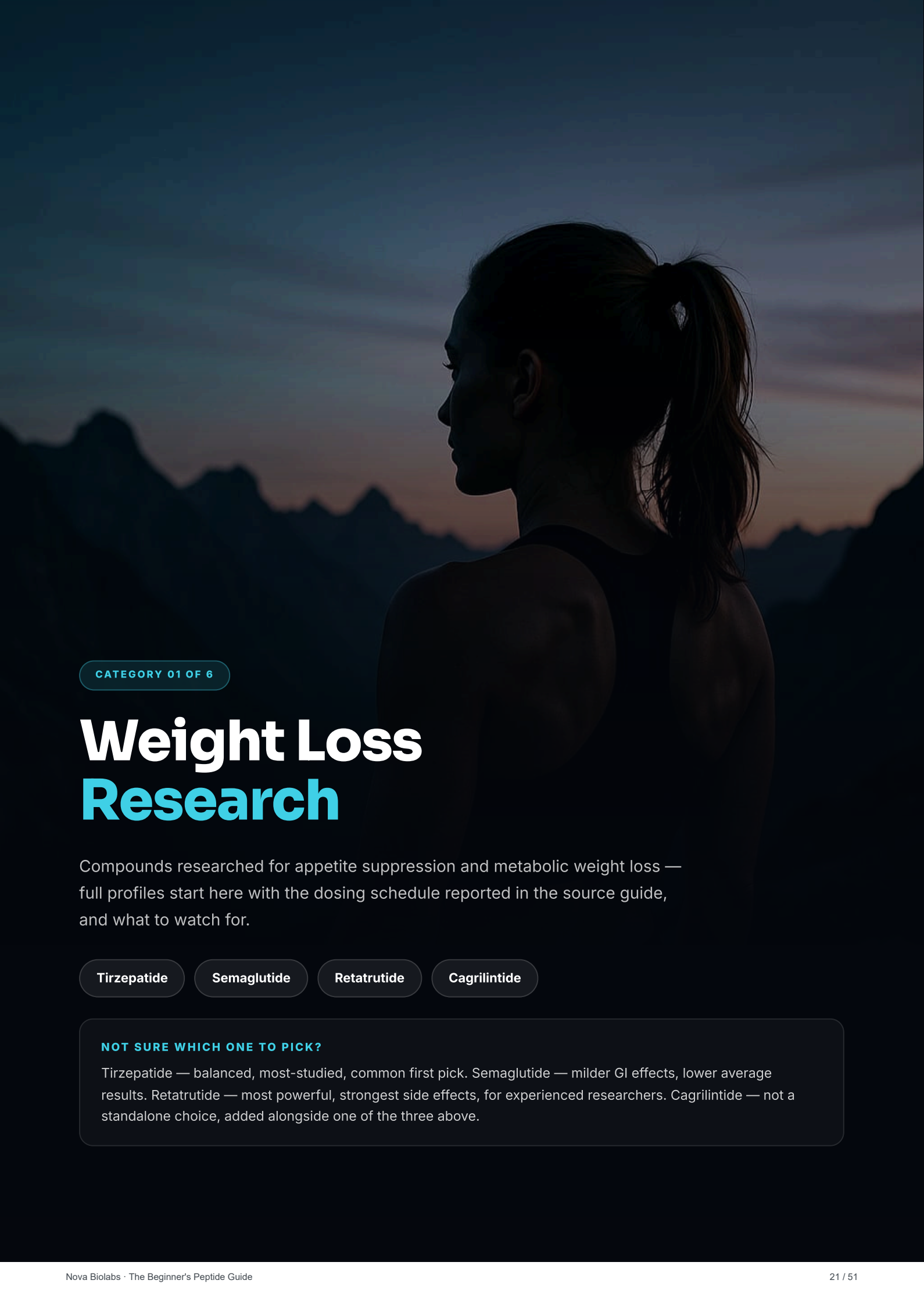
[Semax \(focus\) →](#)
[Selank \(calm\) →](#)

Tanning and appetite

A lab-made copy of a natural hormone that affects skin pigment and appetite.

[MT2 \(Melanotan II\) →](#)

Not sure where to start? Read the basics first (pages 4–17), then pick the goal that matches what you want to learn. You can research more than one goal, and each compound page shows what it stacks well with. For laboratory research use only.



CATEGORY 01 OF 6

Weight Loss Research

Compounds researched for appetite suppression and metabolic weight loss — full profiles start here with the dosing schedule reported in the source guide, and what to watch for.

Tirzepatide

Semaglutide

Retatrutide

Cagrilintide

NOT SURE WHICH ONE TO PICK?

Tirzepatide — balanced, most-studied, common first pick. Semaglutide — milder GI effects, lower average results. Retatrutide — most powerful, strongest side effects, for experienced researchers. Cagrilintide — not a standalone choice, added alongside one of the three above.

Tirzepatide

Peptide User Guide

APPETITE CONTROL · METABOLIC HEALTH

WEIGHT LOSS

A once-weekly compound that copies two of your body's natural "I'm full" hormones at the same time.

**STARTING
DOSE**
2.5mg**FREQUENCY**
Weekly**CYCLE**
12–72 wks

What it does, in plain English

After you eat, your gut releases hormones that tell your brain you're full and help control blood sugar.

Tirzepatide mimics two of them — GIP and GLP-1 — so it's researched for lower appetite, weight loss and steadier blood sugar.



WHAT IT'S RESEARCHED FOR



DUAL-PATHWAY ACTION

Acts on two separate hunger and metabolism signals at once.



BLOOD SUGAR BALANCE

Supports healthy insulin sensitivity and glucose control.



PROVEN IN HUMAN TRIALS

Backed by a large human trial, one of the biggest for any compound here.



APPETITE CONTROL

Researched for reduced appetite and food intake.

DOSING PROTOCOL

MAX DOSE 15MG, TARGET VARIES BY PROTOCOL

1



INJECTIONS

Once-weekly injections, increasing every 4 weeks.

2



DURATION

12–72 weeks, protocol dependent.

3



RECONSTITUTION

Draw depends on your vial — see novabiolabs.co.uk/calculator.

4



INJECTION SITES

Abdomen, thigh, or upper arm. Rotate sites.

WEEK

DOSE

Wks 1–4

First dose

2.5mg

Wks 5–8

5mg

Wks 9–12

7.5mg

Wks 13–16

10mg

Wks 17–20

12.5mg

Wk 21+

Maintenance

15mg



SOURCE-GUIDE NOTE

Maximum ≠ target — many people plateau comfortably below 15mg. Use the calculator at novabiolabs.co.uk/calculator for your specific vial.

GOOD TO KNOW



LARGE HUMAN TRIAL (2022)

On average, people on the highest dose (15mg) lost 22.5% of their body weight over 72 weeks.



TWO SIGNALS AT ONCE

Copies two natural fullness hormones (GIP and GLP-1) together, unlike single-signal compounds.

STACKS WELL WITH

FROM NOVA'S PRODUCT PAGES · TAP TO JUMP

MOTS-c

ENERGY & METABOLISM

Studied for how cells use energy. A common pairing with GLP-1/GIP research.

5-Amino-1MQ

FAT-CELL FOCUS

Targets fat-cell metabolism: a different route to the same weight-loss goal.

BPC-157 + TB-500

RECOVERY

Repair peptides are often studied alongside long appetite-suppression programmes.

RESEARCH USE ONLY · STORAGE: PAGE 18 · SAFETY CHECKS: PAGE 46 · [NOVABIOLABS.CO.UK/TIRZEPATIDE-10MG.HTML](https://novabiolabs.co.uk/tirzepatide-10mg.html)

Semaglutide

Peptide User Guide

APPETITE CONTROL · THE MOST-STUDIED OF ITS KIND

WEIGHT LOSS

A once-weekly compound that copies GLP-1, a natural hormone your gut releases after eating.

STARTING
DOSE
0.25mg

FREQUENCY
Weekly

CYCLE
16–68 wks

What it does, in plain English

GLP-1 slows how quickly your stomach empties and tells your brain you're full. Semaglutide is a longer-lasting copy, researched for reduced appetite, weight loss, blood sugar control and heart health.



WHAT IT'S RESEARCHED FOR



NATURAL SIGNAL MIMIC

Copies one specific, well-understood gut hormone (GLP-1).



LARGEST EVIDENCE BASE

Studied in more separate research programmes than most comparable compounds.



HEART HEALTH DATA

A large trial showed 20% fewer major heart problems, such as heart attack or stroke.



APPETITE CONTROL

Researched for reduced appetite and slower gastric emptying.

DOSING PROTOCOL

MAX DOSE 2.4MG WEEKLY

1



INJECTIONS

Once-weekly injections, increasing every 4 weeks.

2



DURATION

16–68 weeks, protocol dependent.

3



RECONSTITUTION

Draw depends on your vial — see novabiolabs.co.uk/calculator.

4



INJECTION SITES

Abdomen, thigh, or upper arm. Rotate sites.

WEEK	DOSE
Wks 1–4 First dose	0.25mg
Wks 5–8	0.5mg
Wks 9–12	1mg
Wks 13–16	1.7mg
Wk 17+ Maintenance	2.4mg



SOURCE-GUIDE NOTE

Use the calculator at novabiolabs.co.uk/calculator for your specific vial.

GOOD TO KNOW



LARGE HUMAN TRIAL (2021)

On average, people lost 14.9% of their body weight over 68 weeks.



HEART HEALTH TRIAL (2023)

People had 20% fewer major heart problems, such as heart attack or stroke. The trial was in overweight adults without diabetes.

STACKS WELL WITH

FROM NOVA'S PRODUCT PAGES · TAP TO JUMP

Tirzepatide

COMPARISON

A single-signal compound often ordered with a dual-signal one to compare them.

Cagrilintide

EXTRA FULLNESS SIGNAL

Copies a second fullness hormone (amylin), so the two signals can add up.

BPC-157 + TB-500

RECOVERY

Repair peptides are commonly studied alongside longer appetite programmes.

RESEARCH USE ONLY · STORAGE: PAGE 18 · SAFETY CHECKS: PAGE 46 · [NOVABIOLABS.CO.UK/SEMAGLUTIDE-10MG.HTML](https://novabiolabs.co.uk/semaglutide-10mg.html)

Retatrutide

Peptide User Guide

THREE SIGNALS AT ONCE · VERY POTENT

WEIGHT LOSS

A newer once-weekly compound that copies three of your body's appetite and energy hormones at once.

STARTING
DOSE
2mg

FREQUENCY
Weekly

CYCLE
24–104 wks

What it does, in plain English

Two of the signals lower appetite and help control blood sugar. The third, glucagon, is linked to how the body uses stored energy. Trials have reported some of the largest weight changes of any compound here.



WHAT IT'S RESEARCHED FOR



TRIPLE-PATHWAY ACTION

Acts on three separate metabolism and appetite signals at once.



STRONGEST RESULTS

Trial data shows some of the largest average changes of any compound here.



HUMAN TRIAL RESULTS

A human trial reported some of the largest weight changes seen for any compound.



ENERGY SIGNALLING

The added glucagon pathway targets how the body manages stored energy.

DOSING PROTOCOL

DON'T COMPRESS THE 24-WEEK TIMELINE

1



INJECTIONS

Once-weekly subcutaneous injections. In the trial, it took about 24 weeks to reach 12mg.

2



DURATION

24–104 weeks, protocol dependent. Trials have run for up to 104 weeks.

3



RECONSTITUTION

Draw depends on your vial — see novabiolabs.co.uk/calculator.

4



INJECTION SITES

Abdomen, thigh, or upper arm. Rotate sites.

WEEK

DOSE

Wks 1–6

First dose

2mg

Wks 7–12

4mg

Wks 13–18

8mg

Wk 19+

Maintenance

12mg



SOURCE-GUIDE NOTE

Use the calculator at novabiolabs.co.uk/calculator for your specific vial.

GOOD TO KNOW



HUMAN TRIAL (2023)

On average, people on the 12mg dose lost 24.2% of their body weight over 48 weeks.



LARGER 80-WEEK TRIAL (2026)

Reported by the maker, Lilly: on 12mg, people lost 28.3% of body weight on average over 80 weeks. Those who continued to 104 weeks lost 30.3%.

STACKS WELL WITH

FROM NOVA'S PRODUCT PAGES · TAP TO JUMP

MOTS-c

ENERGY

Cell-energy research is a common pairing with triple-signal compounds.

NAD+

ENERGY

NAD+ helps cells make energy and is often studied alongside weight-loss compounds.

Tesamorelin

GROWTH HORMONE

Adds growth-hormone research for broader hormone coverage.

RESEARCH USE ONLY · STORAGE: PAGE 18 · SAFETY CHECKS: PAGE 46 · [NOVABIOLABS.CO.UK/RETATRUTIDE-10MG.HTML](https://novabiolabs.co.uk/retatrutide-10mg.html)

Cagrilintide

Peptide User Guide

SECOND FULLNESS SIGNAL · COMBINATION
RESEARCH

WEIGHT LOSS

A long-lasting copy of amylin, a natural hormone that helps you feel full after a meal.

STARTING
DOSE
0.3mg

FREQUENCY
Weekly

CYCLE
16+ wks

What it does, in plain English

Amylin works on fullness in a different way to GLP-1, so this is usually researched alongside a GLP-1 compound rather than on its own, to see whether the two signals add up.



WHAT IT'S RESEARCHED FOR



DIFFERENT SIGNAL

Targets amylin, a different fullness pathway to the GLP-1 compounds here.



COMBINATION RESEARCH

Researchers pair it with a GLP-1 to study whether the two signals add up.



GROWING INTEREST

Increasingly studied in combination programmes.



APPETITE SUPPORT

Copies a natural signal released alongside insulin after eating.

DOSING PROTOCOL

USUALLY ADDED TO A GLP-1, NOT USED ALONE

1



INJECTIONS

Once-weekly injections, increasing every 4 weeks.

2



DURATION

16+ weeks, typically alongside a GLP-1 compound.

3



RECONSTITUTION

Draw depends on your vial — see novabiolabs.co.uk/calculator.

4



INJECTION SITES

Abdomen, thigh, or upper arm. Rotate sites.

WEEK

DOSE

Wks 1-4

First dose

0.3mg

Wks 5-8

0.6mg

Wks 9-12

1.2mg

Wk 13+

Maintenance

2.4mg



SOURCE-GUIDE NOTE

If already running a GLP-1, treat this as an addition, not a second full schedule — stomach-related side effects from both can add up.

GOOD TO KNOW



NOT A GLP-1 SUBSTITUTE

Copies amylin — a second, separate fullness signal to Tirzepatide, Semaglutide or Retatrutide.



NO FULL TRIAL YET

The dosing here follows common research practice rather than a completed human trial.

STACKS WELL WITH

FROM NOVA'S PRODUCT PAGES · TAP TO JUMP

Semaglutide

WEIGHT LOSS

Amylin and GLP-1 are studied together as two separate fullness signals.

Tirzepatide

WEIGHT LOSS

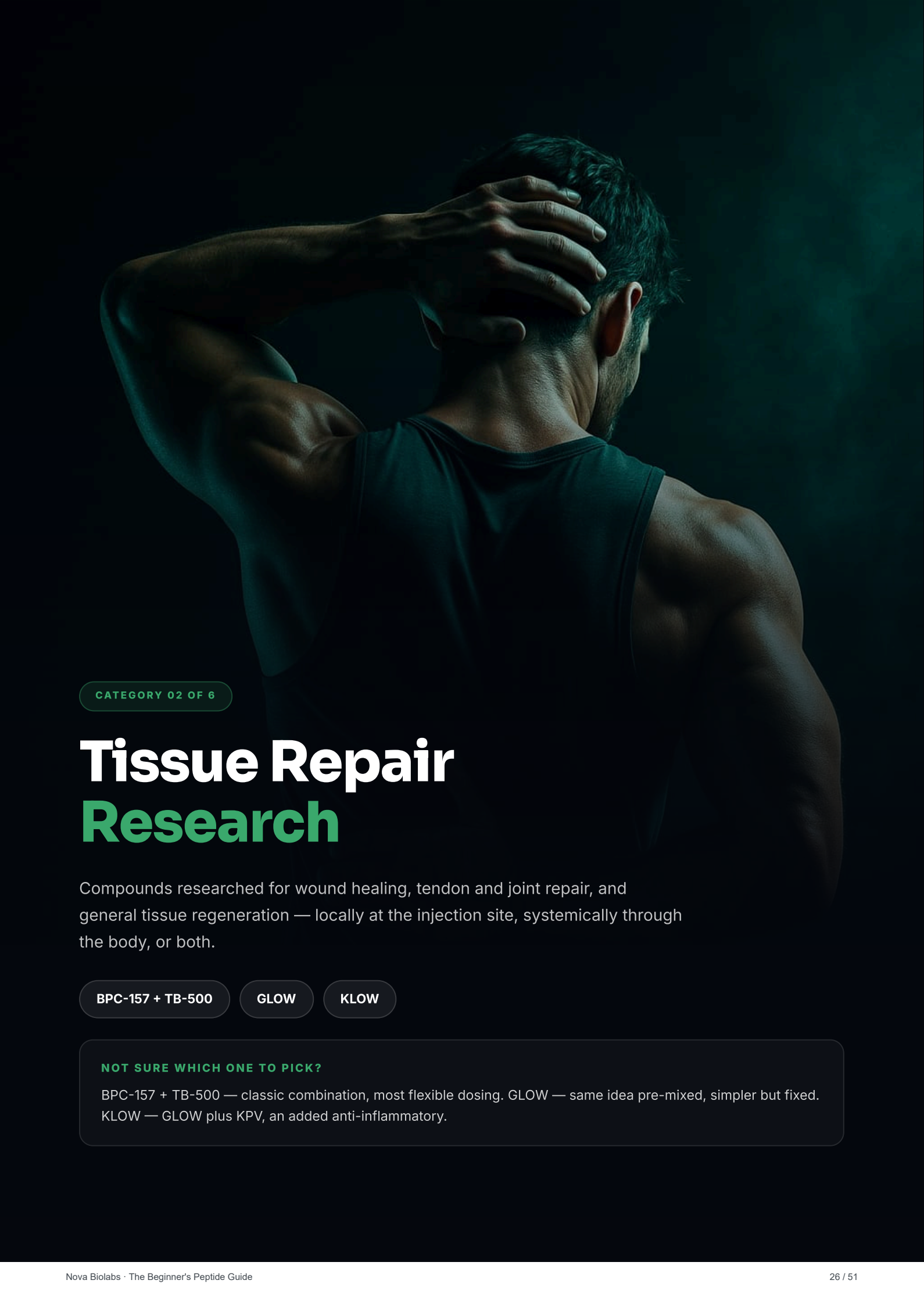
Amylin plus a dual-signal compound is an active area of research.

Retatrutide

WEIGHT LOSS

Studied alongside a triple-signal compound for the widest appetite coverage.

RESEARCH USE ONLY · STORAGE: PAGE 18 · SAFETY CHECKS: PAGE 46 · [NOVABIOLABS.CO.UK/CAGRILINTIDE-10MG.HTML](https://novabiolabs.co.uk/cagrilintide-10mg.html)



CATEGORY 02 OF 6

Tissue Repair Research

Compounds researched for wound healing, tendon and joint repair, and general tissue regeneration — locally at the injection site, systemically through the body, or both.

BPC-157 + TB-500

GLOW

KLOW

NOT SURE WHICH ONE TO PICK?

BPC-157 + TB-500 — classic combination, most flexible dosing. GLOW — same idea pre-mixed, simpler but fixed.
KLOW — GLOW plus KPV, an added anti-inflammatory.

BPC-157 + TB-500

Peptide User Guide

LOCAL + WHOLE-BODY REPAIR · TISSUE REGENERATION

TISSUE REPAIR

A pairing of two repair-focused peptides in one vial.

STARTING DOSE

250–500mcg

FREQUENCY

Daily

CYCLE

4–8 wks

What it does, in plain English

BPC-157 is researched for helping tissue heal at the spot it reaches, such as tendon, muscle or gut lining. TB-500 is researched for wider healing effects around the body. Together they're studied for injury recovery.



WHAT IT'S RESEARCHED FOR



SITE-SPECIFIC REPAIR

BPC-157 is mostly studied for effects at the specific site it reaches.



WHOLE-BODY HEALING

TB-500 is mostly studied for effects that may reach more widely around the body.



COMPLEMENTARY ACTION

Researchers are curious whether local and wider effects complement each other.



TISSUE REGENERATION

Combines two of the most widely-researched repair peptides in one vial.

DOSING PROTOCOL

NO ESCALATION REPORTED IN THE SOURCE GUIDE

1



INJECTIONS

Daily subcutaneous injections. Some protocols use intramuscular injections, which need hands-on training.

2



DURATION

4–8 weeks per cycle, then a break of about 4 weeks.

3



RECONSTITUTION

Sold as a combined vial — see novabiolabs.co.uk/calculator.

4



INJECTION SITES

Abdomen or thighs, areas with fat. Rotate sites. Injecting near an injury is a decision for a healthcare professional.

WEEK

DOSE

Wk 1

First dose

250–500mcg

Wk 2

250–500mcg

Wk 3

250–500mcg

Wk 4

250–500mcg

Wks 5–8

If continuing

250–500mcg



SOURCE-GUIDE NOTE

Neither compound has a completed published human trial — all dosing is extrapolated from animal research and community practice.

GOOD TO KNOW



BPC-157: LOCAL REPAIR

Tendon, ligament, muscle and gut lining — works mostly where it is injected.



TB-500: WIDER HEALING

A version of thymosin β 4, researched for new blood vessel growth, cell movement and calming inflammation.

STACKS WELL WITH

FROM NOVA'S PRODUCT PAGES · TAP TO JUMP

GLOW

SKIN & REPAIR

GLOW is this blend plus GHK-Cu: a natural next step for skin and repair.

GHK-Cu

SKIN & REPAIR

The copper peptide is often studied with BPC-157 and TB-500 for repair and renewal.

Tirzepatide

WEIGHT LOSS

Repair peptides are often studied alongside long appetite-suppression programmes.

RESEARCH USE ONLY · STORAGE: PAGE 18 · SAFETY CHECKS: PAGE 46 · [NOVABIOLABS.CO.UK/BPC-157-TB500-BLEND.HTML](https://novabiolabs.co.uk/BPC-157-TB500-BLEND.HTML)

GLOW

Peptide User Guide

RADIANT SKIN · TISSUE REPAIR · WHOLE-BODY WELLNESS

TISSUE REPAIR

A three-in-one blend of repair and skin-renewal peptides, pre-mixed in one vial.

STARTING
DOSE
2.8mg

FREQUENCY
Daily/EOD

CYCLE
4–8 wks

What it does, in plain English

GHK-Cu is a copper peptide researched for collagen, the protein that keeps skin firm. Paired with BPC-157 and TB-500 for tissue repair, the blend is studied for skin quality, recovery and healthy ageing.



WHAT IT'S RESEARCHED FOR



SUPPORTS COLLAGEN

GHK-Cu is researched for boosting the body's own collagen production.



IMPROVES SKIN TONE & ELASTICITY

Combines three compounds studied for skin health and regeneration.



SUPPORTS HEALTHY AGEING

Researched for tissue renewal and antioxidant protection.



PROMOTES OVERALL VITALITY

One pre-mixed vial combining three individually-studied compounds.

DOSING PROTOCOL

4–8 WEEK CYCLE, THEN A ~4-WEEK BREAK

1



RECONSTITUTION

Add 2.5mL of bacteriostatic water to the 70mg GLOW vial.

2



INJECTIONS

Daily or every-other-day (EOD) subcutaneous injections.

3



CYCLE LENGTH

4–8 weeks, then a break of about 4 weeks.

4



INJECTION SITES

Abdomen or thighs, areas with fat. Rotate injection sites each time.

WEEK

DOSE

DRAW

Wk 1

First dose

2.8mg

10 units

Wk 2

2.8mg

10 units

Wk 3

2.8mg

10 units

Wk 4

2.8mg

10 units

Wks 5–8

If continuing

2.8mg

10 units



SOURCE-GUIDE NOTE

No escalation is reported in the source guide for GLOW. Figures assume the 2.5mL mixing volume above.

FORMULA OVERVIEW



GHK-Cu 50mg

Supports collagen production, skin tone, and elasticity.



BPC-157 10mg

Supports tissue repair and recovery.



TB-500 10mg

Supports mobility, recovery, and cellular repair.

STACKS WELL WITH

FROM NOVA'S PRODUCT PAGES · TAP TO JUMP

KLOW

ADVANCED REPAIR

KLOW is GLOW plus KPV (anti-inflammatory): a common upgrade for the same goals.

BPC-157 + TB-500

RECOVERY

The same repair blend without GHK-Cu, useful for comparing blended vs separate vials.

GHK-Cu

SKIN

GHK-Cu on its own, often studied alongside BPC-157 and TB-500.

RESEARCH USE ONLY · STORAGE: PAGE 18 · SAFETY CHECKS: PAGE 46 · NOVABIOLABS.CO.UK/GLOW.HTML

KLOW

Peptide User Guide

GLOW + KPV · ADVANCED REPAIR · ANTI-INFLAMMATORY

TISSUE REPAIR

GLOW with a fourth ingredient added, in a larger vial.

STARTING
DOSE
~3.2mg

FREQUENCY
Daily/EOD

CYCLE
4–8 wks

What it does, in plain English

The same skin-renewal and repair blend as GLOW, plus KPV, a small peptide researched for calming inflammation. It's studied for skin, healing and reducing irritation in tissue.



WHAT IT'S RESEARCHED FOR



CALMS INFLAMMATION

KPV is a small peptide researched for calming inflammation.



BUILDS ON GLOW

Same tissue-repair and skin-regeneration profile, in a larger vial.



FOUR-COMPOUND BLEND

Combines four individually-studied ingredients in one vial.



SKIN & TISSUE FOCUS

Researched for collagen production and cellular repair.

DOSING PROTOCOL

~3.2MG/DAY IS AN ESTIMATE, NOT DIRECTLY SOURCED

1



INJECTIONS

Daily or every-other-day (EOD) subcutaneous injections.

2



CYCLE LENGTH

4–8 weeks, then a break of about 4 weeks.

3



RECONSTITUTION

Draw depends on your mix — see novabiolabs.co.uk/calculator.

4



INJECTION SITES

Abdomen or thighs, areas with fat. Rotate injection sites each time.

WEEK

DOSE

Wk 1

First dose

~3.2mg

Wk 2

~3.2mg

Wk 3

~3.2mg

Wk 4

~3.2mg

Wks 5–8

If continuing

~3.2mg



SOURCE-GUIDE NOTE

No escalation is reported in the source guide for KLOW. The ~3.2mg/day figure scales GLOW's dose up to KLOW's 80mg vial and is an estimate, not a directly-sourced figure.

FORMULA OVERVIEW



GHK-Cu

Supports collagen production, skin tone, and elasticity.



BPC-157 + TB-500

Repair at the injection site and across the body.



KPV

A small peptide well researched for calming inflammation.

STACKS WELL WITH

FROM NOVA'S PRODUCT PAGES · TAP TO JUMP

GLOW

COMPARISON

GLOW has three of KLOW's four ingredients, useful for seeing what KPV adds.

BPC-157 + TB-500

RECOVERY

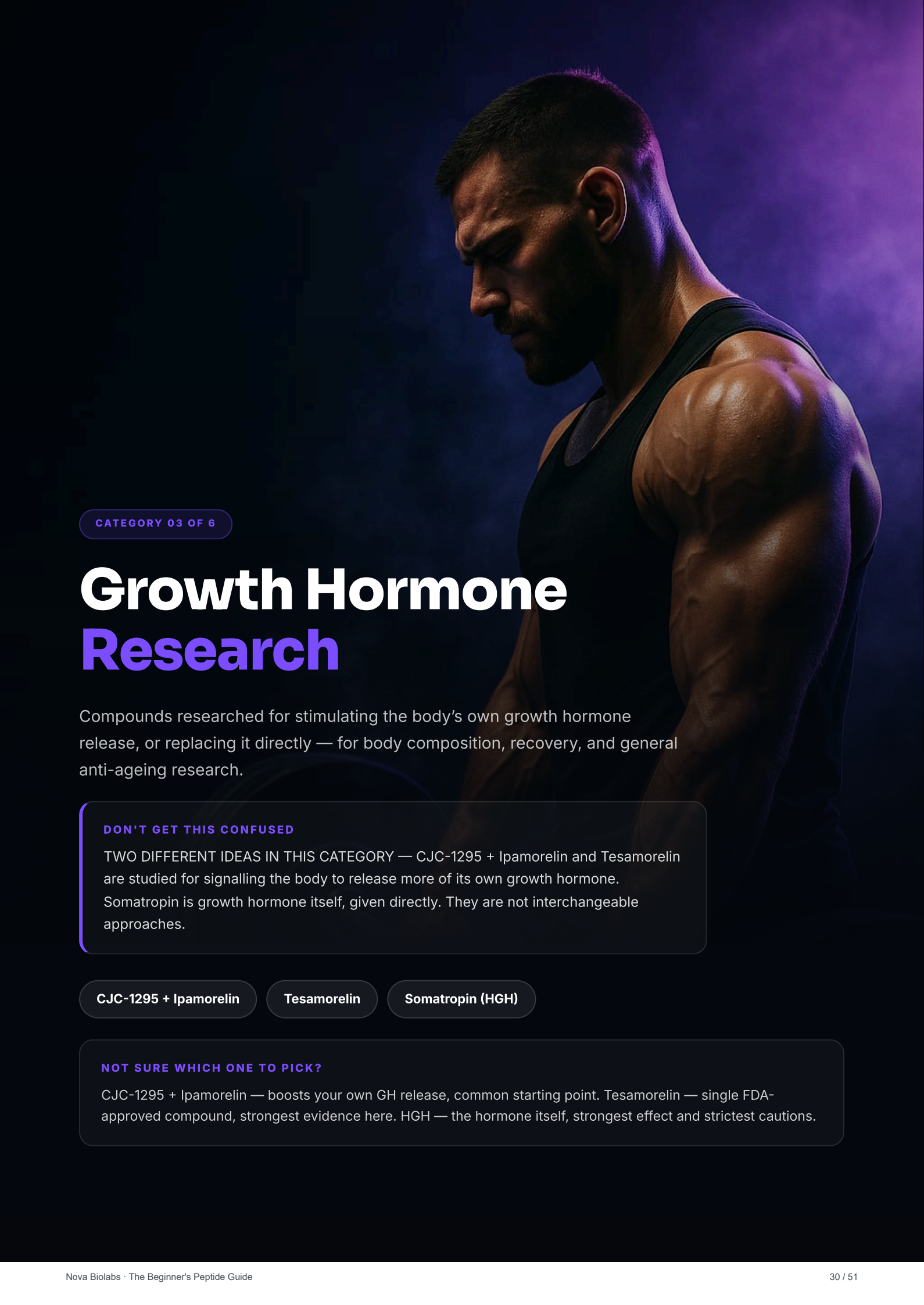
The core repair blend that KLOW is built on.

GHK-Cu

SKIN

GHK-Cu on its own, often studied alongside BPC-157 and TB-500.

RESEARCH USE ONLY · STORAGE: PAGE 18 · SAFETY CHECKS: PAGE 46 · [NOVABIOLABS.CO.UK/KLOW-80MG.HTML](https://novabiolabs.co.uk/klow-80mg.html)



CATEGORY 03 OF 6

Growth Hormone Research

Compounds researched for stimulating the body's own growth hormone release, or replacing it directly — for body composition, recovery, and general anti-ageing research.

DON'T GET THIS CONFUSED

TWO DIFFERENT IDEAS IN THIS CATEGORY — CJC-1295 + Ipamorelin and Tesamorelin are studied for signalling the body to release more of its own growth hormone. Somatropin is growth hormone itself, given directly. They are not interchangeable approaches.

CJC-1295 + Ipamorelin

Tesamorelin

Somatropin (HGH)

NOT SURE WHICH ONE TO PICK?

CJC-1295 + Ipamorelin — boosts your own GH release, common starting point. Tesamorelin — single FDA-approved compound, strongest evidence here. HGH — the hormone itself, strongest effect and strictest cautions.

CJC-1295 (No DAC) + Ipamorelin

Peptide User Guide

NATURAL GROWTH HORMONE RELEASE · COMMON STARTING POINT

GROWTH HORMONE

Two peptides that prompt your own body to release more growth hormone.

STARTING DOSE

100mcg each

FREQUENCY

2–3×/day

CYCLE

8–12 wks

What it does, in plain English

Growth hormone is released in pulses, mostly during deep sleep. These two work on different steps of that release, so they're researched for boosting your natural pulses — which is why they're often taken before bed.



WHAT IT'S RESEARCHED FOR



SHORT, SHARP PULSE

This No DAC form clears in under an hour, closely mimicking your body's own natural GH-release pulse.



SELECTIVE GH PULSE

Ipamorelin triggers release with fewer unwanted side effects.



TWO COMPLEMENTARY STEPS

Studied for acting on two different steps of the same release process.



PRE-SLEEP PROTOCOL

Most common protocol aligns with the largest natural nocturnal GH pulse.

DOSING PROTOCOL

PEAK PROTOCOLS USE 200–300MCG EACH, 2–3× DAILY

1



INJECTIONS

2–3 subcutaneous injections daily, most commonly pre-sleep.

2



DURATION

8–12 weeks, then a break of about 4 weeks.

3



RECONSTITUTION

Draw depends on your mix — see novabiolabs.co.uk/calculator.

4



TIMING

Wait at least 2 hours after a carbohydrate meal before injecting.

WEEK

DOSE

Wk 1

First dose

100mcg each

Wk 2

100mcg each

Wk 3

100mcg each

Wk 4

100mcg each

Wks 5–12

If continuing

100mcg each



SOURCE-GUIDE NOTE

No escalation is reported in the source guide. Avoid if you have an active cancer or diabetic eye disease (retinopathy).

Two different forms exist

— this page and Nova's vial are No DAC, dosed several times a day. A separate “with DAC” form is dosed once or twice weekly at a much higher 1–2mg per shot; don't apply that weekly dose to this vial.

GOOD TO KNOW



CJC-1295 (NO DAC)

The short-acting form Nova stocks — cleared within about an hour, which is why it's dosed multiple times a day rather than weekly.



IPAMORELIN

Prompts a clean burst of growth hormone with minimal effect on cortisol (the stress hormone) or appetite.

STACKS WELL WITH

FROM NOVA'S PRODUCT PAGES · TAP TO JUMP

Tesamorelin

Peptide User Guide

APPROVED MEDICINE · DEEP BELLY FAT
RESEARCH

GROWTH HORMONE

A lab-made version of the signal your brain uses to tell the pituitary gland to release growth hormone.

STARTING
DOSE
2mg

FREQUENCY
Daily

CYCLE
12–26 wks

What it does, in plain English

It prompts your body to make more of its own growth hormone. It's researched mainly for reducing deep belly (visceral) fat, and it's one of the few compounds here approved as a medicine for a specific use.



WHAT IT'S RESEARCHED FOR



APPROVED AS A MEDICINE

One of very few compounds here with a completed human trial and official approval.



VISCERAL FAT RESEARCH

Specifically studied for reducing a type of internal body fat.



COGNITIVE BENEFITS TOO

A randomised trial also showed improved cognitive function at 20 weeks.



LONG-TERM DATA

Shows a full, completed research and approval journey.

DOSING PROTOCOL 1MG/DAY OFF-LABEL PROTOCOL IS A COST MEASURE, NOT THE VALIDATED DOSE

1



INJECTIONS

Once-daily subcutaneous injection. The official label gives no time of day. Many people take it fasted (at least 2 hours after a meal), often before bed.

2



DURATION

12–26 weeks, then a break of 4–8 weeks by convention.

3



RECONSTITUTION

Draw depends on your mix — see novabiolabs.co.uk/calculator.

4



INJECTION SITES

Abdomen, in areas with fat. Rotate sites, and avoid scars, bruises and the belly button.

WEEK

DOSE

Wk 1

First dose

2mg

Wk 2

2mg

Wk 3

2mg

Wk 4

2mg

Wks 5–26

If continuing

2mg



SOURCE-GUIDE NOTE

Avoid if you have an active cancer or a pituitary condition, or if you are pregnant.

GOOD TO KNOW



APPROVED AS A MEDICINE

Approved by the US medicines regulator (the FDA) for excess belly fat in adults with HIV-related lipodystrophy. First approved at 2mg daily; the current label for Egrifta SV uses 1.4mg daily. Not approved for weight loss.



THINKING & MEMORY DATA

A randomised trial also showed better thinking and memory scores at 20 weeks, though fat loss reverses once it is stopped.

STACKS WELL WITH

FROM NOVA'S PRODUCT PAGES · TAP TO JUMP

CJC-1295 + Ipamorelin

GROWTH HORMONE

Paired to study two different routes to growth hormone release.

SS-31

CELL ENERGY

Growth-hormone research alongside cell-energy (mitochondria) research.

Somatropin (HGH)

COMPARISON

Helps tell apart encouraging your own release from taking the hormone directly.

RESEARCH USE ONLY · STORAGE: PAGE 18 · SAFETY CHECKS: PAGE 46 · [NOVABIOLABS.CO.UK/TESAMORELIN-10MG.HTML](https://novabiolabs.co.uk/tesamorelin-10mg.html)

Somatropin (HGH)

Peptide User Guide

DIRECT REPLACEMENT · LONGEST-ESTABLISHED

GROWTH HORMONE

The actual growth hormone your pituitary gland makes, rather than something that nudges your body to make it.

STARTING
DOSE
1IU

FREQUENCY
Daily

CYCLE
Ongoing

What it does, in plain English

Growth hormone helps the body repair tissue, build protein and process fat. It has been used in medicine for decades for people who don't make enough, and it's the strongest and strictest option in this category.



WHAT IT'S RESEARCHED FOR



DECADES OF USE

One of the longest-established lab-made hormones in medicine.



DIRECT REPLACEMENT

The real hormone itself, not a stimulus for your own release.



WELL-UNDERSTOOD PATHWAY

Studied and prescribed for people whose bodies don't produce enough naturally.



REPAIR & FAT USE

Studied for building protein, breaking down fat and repairing tissue.

DOSING PROTOCOL

NO FORMAL TITRATION IS PUBLISHED — THIS IS A CONSERVATIVE CONVENTION

1



INJECTIONS

Once-daily subcutaneous injection, or a 5-on/2-off schedule.

2



DURATION

Ongoing / long-term.

3



RECONSTITUTION

Draw depends on your mix — see novabiolabs.co.uk/calculator.

4



INJECTION SITES

Abdomen, areas with fat. Rotate sites.

WEEK

DOSE

Wk 1

First dose

1iu

Wks 2-3

2iu

Wk 4+

Maintenance

2-4iu



SOURCE-GUIDE NOTE

Avoid if you have an active cancer, diabetic eye disease, or are recovering from major surgery or a serious illness.

GOOD TO KNOW



DOSED IN IU, NOT MG

Measured in international units by convention (≈3iu per 1mg).



THE HORMONE ITSELF

Unlike CJC-1295/Ipamorelin, this is the hormone itself, not a nudge for your body to make its own.

STACKS WELL WITH

FROM NOVA'S PRODUCT PAGES · TAP TO JUMP

CJC-1295 + Ipamorelin

COMPARISON

Compares your own release with taking growth hormone directly.

Tesamorelin

COMPARISON

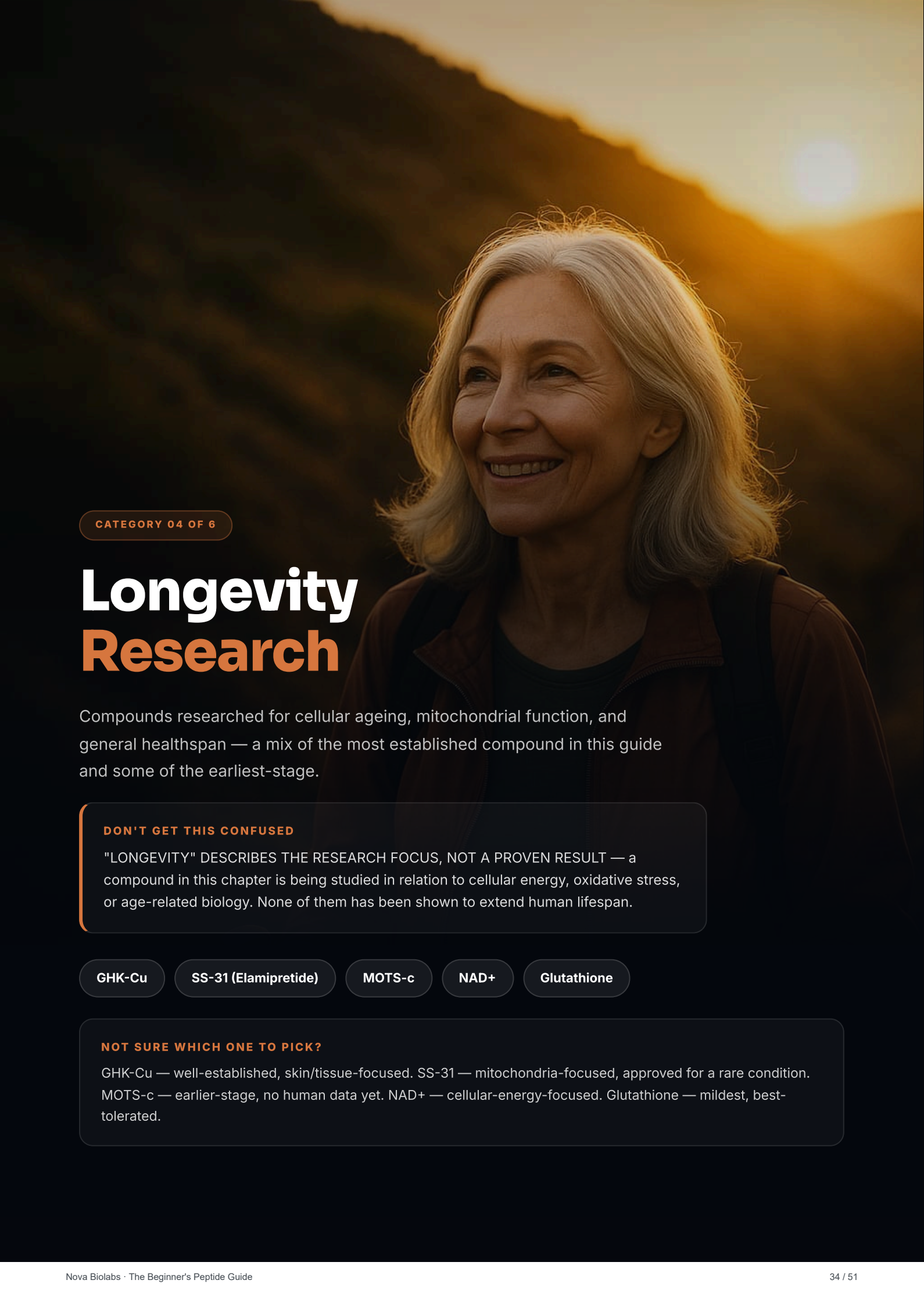
The same comparison, using a different release-signal compound.

NAD+

CELL HEALTH

A core cell-energy compound, often studied alongside for broad cell health.

RESEARCH USE ONLY · STORAGE: PAGE 18 · SAFETY CHECKS: PAGE 46 · [NOVABIOLABS.CO.UK/HGH-36IU.HTML](https://novabiolabs.co.uk/HGH-36IU.HTML)



CATEGORY 04 OF 6

Longevity Research

Compounds researched for cellular ageing, mitochondrial function, and general healthspan — a mix of the most established compound in this guide and some of the earliest-stage.

DON'T GET THIS CONFUSED

"LONGEVITY" DESCRIBES THE RESEARCH FOCUS, NOT A PROVEN RESULT — a compound in this chapter is being studied in relation to cellular energy, oxidative stress, or age-related biology. None of them has been shown to extend human lifespan.

GHK-Cu

SS-31 (Elamipretide)

MOTS-c

NAD+

Glutathione

NOT SURE WHICH ONE TO PICK?

GHK-Cu — well-established, skin/tissue-focused. SS-31 — mitochondria-focused, approved for a rare condition. MOTS-c — earlier-stage, no human data yet. NAD+ — cellular-energy-focused. Glutathione — mildest, best-tolerated.

GHK-Cu

Peptide User Guide

NATURALLY PRESENT · SKIN & TISSUE FOCUS

LONGEVITY

A small copper-based peptide your body already makes, in falling amounts as you get older.

STARTING
DOSE
1-2mg

FREQUENCY
Daily

CYCLE
8 wks

What it does, in plain English

It's researched for skin and tissue repair: helping the body make collagen, calm oxidative damage and rebuild healthy tissue. Lab studies show it influences thousands of genes, though human data is still limited.



WHAT IT'S RESEARCHED FOR



NATURALLY OCCURRING

Already present in the body, in falling amounts as you get older.



BROAD GENE INFLUENCE

Genomic analysis shows it influences over 4,000 human genes in lab studies.



TISSUE RENEWAL

Boosts the body's antioxidant defences and collagen production.



WELL-TOLERATED

Human data is limited, but it has been well tolerated, with no significant effects reported.

DOSING PROTOCOL

PEAK PROTOCOLS REACH 2-3MG DAILY

1



INJECTIONS

Once-daily subcutaneous injection is the source-guide convention, though some protocols use 2-3x/week instead. Topical use is typically a 0.05-0.1% cream.

2



DURATION

8 weeks, then a break of 2-4 weeks by convention.

3



RECONSTITUTION

Draw depends on your mix — see novabiolabs.co.uk/calculator.

4



INJECTION SITES

Abdomen, areas with fat. Rotate sites.

WEEK

DOSE

Wk 1

First dose

1-2mg

Wk 2

1-2mg

Wk 3

1-2mg

Wk 4

1-2mg

Wks 5-8

If continuing

1-2mg



SOURCE-GUIDE NOTE

Avoid if you've had cancer recently, or currently do.

GOOD TO KNOW



LAB STUDY (2015)

A study on skin cells in the lab found it influences over 4,000 human genes.



TISSUE RENEWAL

Boosts collagen, antioxidant defences and nerve repair.

STACKS WELL WITH

FROM NOVA'S PRODUCT PAGES · TAP TO JUMP

NAD+

LONGEVITY

Skin and tissue renewal plus cell-energy research is a common ageing-focused pairing.

BPC-157 + TB-500

REPAIR

Often combined with BPC-157 and TB-500 for wider repair research.

GLOW

SKIN & REPAIR

GLOW puts GHK-Cu with BPC-157 and TB-500 in one pre-mixed vial.

RESEARCH USE ONLY · STORAGE: PAGE 18 · SAFETY CHECKS: PAGE 46 · [NOVABIOLABS.CO.UK/GHK-CU-100MG.HTML](https://novabiolabs.co.uk/ghk-cu-100mg.html)

SS-31 (Elamipretide)

Peptide User Guide

CELL ENERGY FOCUS · APPROVED MEDICINE

LONGEVITY

A small peptide that targets mitochondria, the tiny “power stations” inside your cells.

STARTING
DOSE
4mg

FREQUENCY
Daily

CYCLE
4–24 wks

What it does, in plain English

Mitochondria turn food into energy, and they wear down with stress and age. SS-31 heads straight for them and is researched for protecting them and restoring energy production. It's approved as a medicine for one rare condition.



WHAT IT'S RESEARCHED FOR



APPROVED AS A MEDICINE

Recently approved for a rare genetic condition.



TARGETS CELL ENERGY

Goes straight to the mitochondria, the cell's power stations.



RESTORES CELL ENERGY

Helps stressed cells make energy again.



HEART, KIDNEY & MUSCLE

Studied for supporting organs and tissue placed under high energy stress.

DOSING PROTOCOL

CLINICAL TRIALS VALIDATED 4–40MG/DAY SC

1



INJECTIONS

Once-daily subcutaneous injection.

2



DURATION

4–24 weeks, then a break of about 4 weeks by convention.

3



RECONSTITUTION

Draw depends on your mix — see novabiolabs.co.uk/calculator.

4



SPECIAL STORAGE

–20°C before mixing — not the usual 2–8°C.

WEEK

DOSE

Wk 1

First dose

4mg

Wk 2

4mg

Wk 3

4mg

Wk 4

4mg

Wks 5–24

If continuing

4mg



SOURCE-GUIDE NOTE

No contraindications are established in the source guide for this compound.

GOOD TO KNOW



RESTORES CELL ENERGY

Helps older or stressed cells make energy again (ATP is the cell's fuel).



RESEARCH AREAS

Heart injury, chronic kidney disease, muscle weakness and retinal (eye) degeneration.

STACKS WELL WITH

FROM NOVA'S PRODUCT PAGES · TAP TO JUMP

NAD+

LONGEVITY

Both feature in Nova's Longevity Stack: mitochondria protection plus cell energy.

MOTS-c

LONGEVITY

Two mitochondria-focused compounds studied for different sides of cell energy.

Retatrutide

METABOLISM

Paired in Nova's Elite Bundle: cell-energy research alongside metabolic research.

RESEARCH USE ONLY · STORAGE: PAGE 18 · SAFETY CHECKS: PAGE 46 · [NOVABIOLABS.CO.UK/SS-31-10MG.HTML](https://novabiolabs.co.uk/ss-31-10mg.html)

MOTS-c

Peptide User Guide

MADE BY YOUR OWN CELLS · ENERGY USE ·
EARLY RESEARCH

LONGEVITY

A peptide made by your own mitochondria (the cell's power stations), researched for energy use and exercise.

STARTING
DOSE
5mg

FREQUENCY
1-2×/wk

CYCLE
8 wks

What it does, in plain English

MOTS-c acts like a message from the mitochondria to the rest of the cell about energy. Studies link it to how muscle uses sugar and how the body responds to exercise. It's still early-stage, mostly animal research.



WHAT IT'S RESEARCHED FOR



UNUSUAL ORIGIN

Comes from mitochondria's own small set of instructions, not the cell's main ones.



EXERCISE LINK

Some studies link natural MOTS-c levels to exercise and physical stress.



REACHES THE CONTROL CENTRE

The first peptide shown to move into the nucleus under stress, where it can switch genes on and off.



SUGAR USE

Helps muscle take up sugar from the blood, even without insulin.

DOSING PROTOCOL

PEAK PROTOCOLS REACH 10MG PER SESSION

1



INJECTIONS

1-2 subcutaneous injections weekly, ideally on training days.

2



DURATION

8 weeks, then a break of about 4 weeks by convention.

3



RECONSTITUTION

Draw depends on your mix — see novabiolabs.co.uk/calculator.

4



INJECTION SITES

Abdomen, areas with fat. Rotate sites.

WEEK

DOSE

Wk 1

First dose

5mg

Wk 2

5mg

Wk 3

5mg

Wk 4

5mg

Wks 5-8

If continuing

5mg



SOURCE-GUIDE NOTE

No contraindications are established for this compound. No completed human trial yet. The dosing follows common research practice, based on animal studies.

GOOD TO KNOW



REACHES THE NUCLEUS (2015)

The first peptide shown to travel into the cell's control centre (the nucleus) under stress.



SUGAR & AGE LINK (2015; 2019)

Blood levels of MOTS-c also fall with age, part of the reason it is being researched.

You'll also see it dosed differently. Some protocols use 1mg daily instead of 5mg 1-2× weekly — both are community/research conventions with no human dose-finding trial behind either, so neither is more “correct”.

STACKS WELL WITH

FROM NOVA'S PRODUCT PAGES · TAP TO JUMP

NAD+

LONGEVITY

Paired in Nova's Longevity Stack: mitochondria signalling plus cell energy.

SS-31

LONGEVITY

Two mitochondria-focused compounds studied for different sides of cell energy.

Tirzepatide

METABOLISM

Both feature in Nova's Performance Bundle: energy plus weight loss research.

NAD+

Peptide User Guide

CELL ENERGY · ESSENTIAL MOLECULE

LONGEVITY

A molecule every cell in your body uses to turn food into energy. Levels drop with age.

STARTING
DOSE
50mgFREQUENCY
2-3×/wkCYCLE
4-12 wks

What it does, in plain English

NAD+ helps power your cells and supports the repair of damaged DNA. Because levels fall as we age, it's researched for energy, healthy ageing and cell repair. It's a coenzyme rather than a true peptide.



WHAT IT'S RESEARCHED FOR



CELL ENERGY

Helps cells turn food into usable energy.



WELL-ESTABLISHED ROLE

Plays a genuinely essential, well-documented role in how cells work.



DECLINES WITH AGE

Falling levels with age is a well-documented laboratory finding.



DNA REPAIR SUPPORT

Helps cells repair damaged DNA and switch on protective genes.

DOSING PROTOCOL

SC PEAK DOSE 100MG PER SESSION

1



INJECTIONS

2-3 subcutaneous injections weekly.

2



DURATION

4-12 weeks, cycle or ongoing.

3



RECONSTITUTION

Draw depends on your mix — see novabiolabs.co.uk/calculator.

4



GO SLOWLY

Inject slowly. Injecting too fast can cause flushing, chest tightness or nausea.

WEEK

DOSE

Wk 1

First dose

50mg

Wk 2

50mg

Wk 3

50mg

Wk 4

50mg

Wks 5-12

If continuing

50mg



SOURCE-GUIDE NOTE

No contraindications are established for this compound. Tablet and capsule forms (NMN, NR) are indirect ingredients that the body absorbs less well than NAD+ itself.

You'll also see it dosed differently

— some protocols run a short daily loading phase before dropping to once-weekly, and some skip 2-3×/week entirely and just dose once a week throughout.

GOOD TO KNOW



THREE CORE JOBS

Involved in making energy, repairing DNA and switching on protective "longevity" genes — some of the most basic jobs in every cell.



FALLS WITH AGE

Roughly 40-50% less NAD+ in body fat between the ages of 40 and 60.

STACKS WELL WITH

FROM NOVA'S PRODUCT PAGES · TAP TO JUMP

SS-31

LONGEVITY

Both feature in Nova's Longevity Stack: cell energy plus mitochondria protection.

MOTS-c

LONGEVITY

Paired in Nova's Longevity Stack: cell energy plus mitochondria signalling.

Glutathione

CELL PROTECTION

Two foundational cell-protection compounds: energy plus antioxidant.

Glutathione

Peptide User Guide

MASTER ANTIOXIDANT · DETOX SUPPORT

LONGEVITY

Your body's own master antioxidant, built from three amino acids.

STARTING DOSE

600–1000mg

FREQUENCY

1–3×/wk

CYCLE

4–12 wks

What it does, in plain English

Antioxidants mop up the damaging by-products that cells make as they work. Glutathione is researched for cell protection, supporting the liver's detox work, and skin tone.



WHAT IT'S RESEARCHED FOR



MASTER ANTIOXIDANT

One of the most fundamental, well-studied molecules in human biology.



DETOX SUPPORT

Neutralises damaging by-products of normal cell activity and supports the liver's detox work.



ALREADY IN MEDICAL USE

Already used in some licensed medical products.



SKIN PIGMENTATION

Also researched for its role in skin pigmentation pathways.

DOSING PROTOCOL

600–1000MG PER SESSION

1



INJECTIONS

1–3 subcutaneous or intramuscular injections weekly.

2



DURATION

4–12 weeks, cycle or ongoing.

3



RECONSTITUTION

Draw depends on your mix — see novabiolabs.co.uk/calculator.

4



IF YOU HAVE ASTHMA

Take extra care. Stop and get medical help if breathing feels tight or restricted.

WEEK

DOSE

Wk 1

First dose

600–1000mg

Wk 2

600–1000mg

Wk 3

600–1000mg

Wk 4

600–1000mg

Wks 5–12

If continuing

600–1000mg



SOURCE-GUIDE NOTE

No contraindications are established, but take extra care if you have asthma. Some sources caution that going well past roughly 1500mg a week may raise the risk of rebound oxidation once you stop, with no proven extra benefit — if you're at the top of this range, 1–2× a week keeps you under that.

GOOD TO KNOW



MOPS UP CELL DAMAGE

Neutralises damaging by-products of cell activity, supports the liver's detox work and keeps immune cells working.



DECLINES WITH AGE

Levels decline with age and oxidative stress.

STACKS WELL WITH

FROM NOVA'S PRODUCT PAGES · TAP TO JUMP

NAD+

LONGEVITY

Antioxidant research is often paired with cell-energy research.

SS-31

CELL PROTECTION

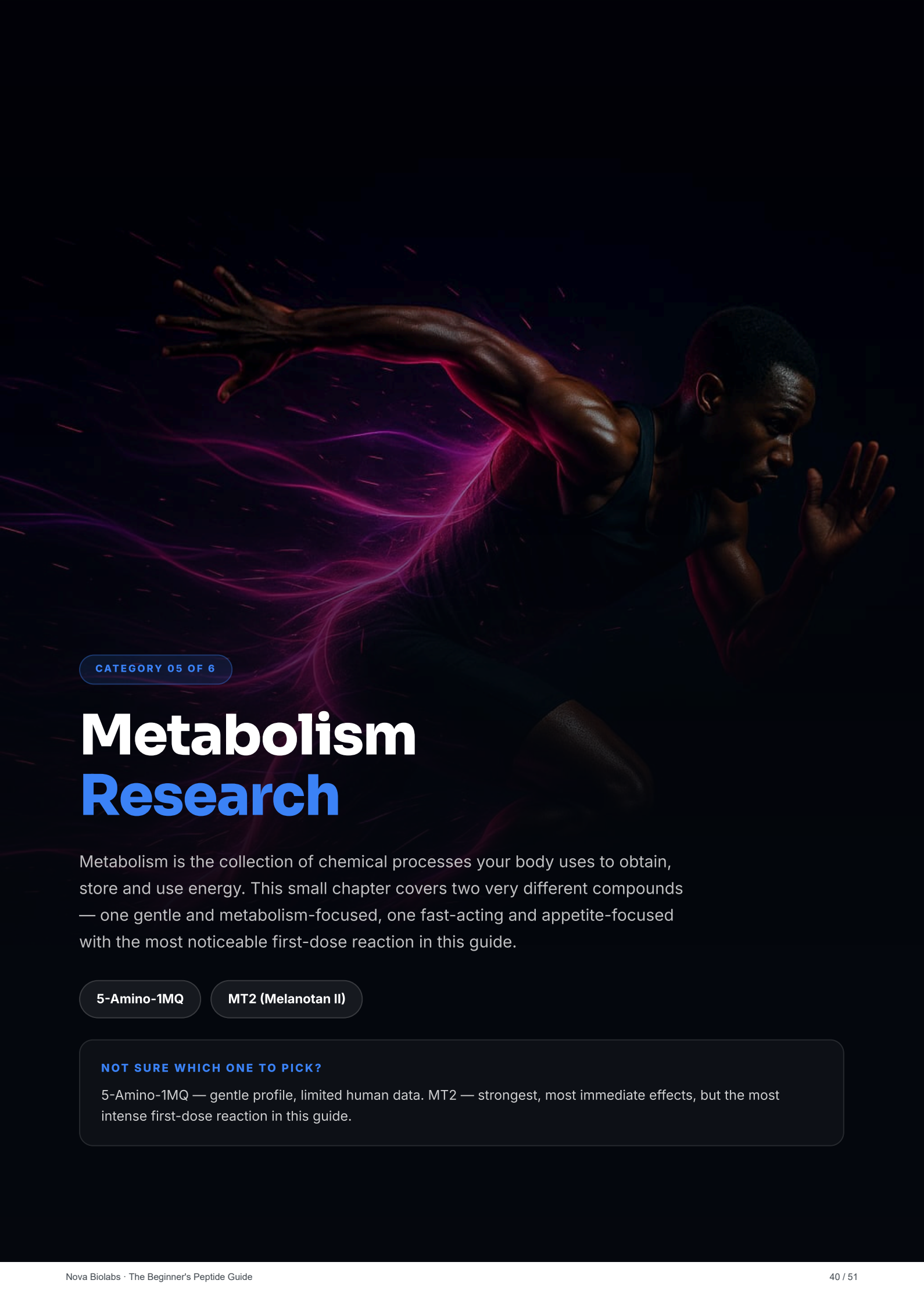
Both are studied for broad antioxidant and cell-energy support.

GHK-Cu

SKIN & CELLS

Antioxidant plus tissue-renewal research is a common combination.

RESEARCH USE ONLY · STORAGE: PAGE 18 · SAFETY CHECKS: PAGE 46 · [NOVABIOLABS.CO.UK/GLUTATHIONE-1500MG.HTML](https://novabiolabs.co.uk/glutathione-1500mg.html)



CATEGORY 05 OF 6

Metabolism Research

Metabolism is the collection of chemical processes your body uses to obtain, store and use energy. This small chapter covers two very different compounds — one gentle and metabolism-focused, one fast-acting and appetite-focused with the most noticeable first-dose reaction in this guide.

5-Amino-1MQ

MT2 (Melanotan II)

NOT SURE WHICH ONE TO PICK?

5-Amino-1MQ — gentle profile, limited human data. MT2 — strongest, most immediate effects, but the most intense first-dose reaction in this guide.

5-Amino-1MQ

Peptide User Guide

FAT CELL METABOLISM · EARLY RESEARCH

METABOLISM

A small molecule (not a peptide) aimed at one enzyme found mostly in fat cells.

**STARTING
DOSE**
2.5mg**FREQUENCY**
1-2×/day**CYCLE**
4-8 wks

What it does, in plain English

By blocking that enzyme, it's thought to nudge fat cells to burn energy more actively and to raise NAD+. In animal studies it reduced fat while keeping lean muscle. Human research is still limited.



WHAT IT'S RESEARCHED FOR



ONE CLEAR TARGET

Aims at one specific enzyme rather than the whole system.



FAT CELL FOCUS

Blocking that enzyme (NNMT) nudges fat cells to burn more energy and raises NAD+.



PRESERVES LEAN MASS

Animal research shows preferential fat reduction with preserved lean mass.



SYNERGY WITH NAD+

Mechanistically synergistic with direct NAD+ supplementation.

DOSING PROTOCOL

4-8 WEEK CYCLE, THEN A 2-4-WEEK BREAK

1



RECONSTITUTION

Add 2mL of bacteriostatic water to the 50mg vial.

2



INJECTIONS

Once or twice daily subcutaneous injections for 4-8 weeks.

3



CYCLE

A break of 2-4 weeks between cycles is the source guide's convention.

4



INJECTION SITES

Abdomen, areas with fat. Rotate sites.

WEEK

DOSE

DRAW

Wk 1

First dose

2.5mg

10 units

Wk 2

2.5mg

10 units

Wk 3

2.5mg

10 units

Wk 4

2.5mg

10 units

Wks 5-8

If continuing

2.5mg

10 units



SOURCE-GUIDE NOTE

No contraindications are established for this compound. Figures assume the 2mL mixing volume above.

Not the same as oral capsules:

5-Amino-1MQ is also widely sold as a 50mg oral capsule, dosed far higher (50-100mg, 1-2×/day) because swallowing it loses far more to digestion. That oral dose does not apply to this injectable vial.

GOOD TO KNOW



ANIMAL STUDY (2021)

In animals, it reduced body fat while keeping lean muscle.



RAISES NAD+ & SAM

Blocks one enzyme in fat cells, which raises two other molecules cells rely on for energy and repair.

STACKS WELL WITH

FROM NOVA'S PRODUCT PAGES · TAP TO JUMP

NAD+ ENERGY

5-Amino-1MQ raises the body's NAD+, so the two are commonly studied together.

Tirzepatide WEIGHT LOSS

Often paired with GLP-1/GIP research for broader metabolic coverage.

MOTS-c ENERGY

Both are studied for metabolism and energy pathways.

MT2 (Melanotan II)

Peptide User Guide

SKIN PIGMENT & APPETITE · EARLY HUMAN TESTING

METABOLISM

A lab-made copy of a natural hormone that affects skin pigment and appetite.

STARTING
DOSE
0.1mg

FREQUENCY
Daily

CYCLE
Seasonal

What it does, in plain English

It switches on melanocortin receptors: some darken the skin, which is why it's used in tanning research, and others reduce appetite. It's one of the few compounds here that reached early human testing.



WHAT IT'S RESEARCHED FOR



TANNING RESEARCH

Switches on several receptors, including ones that darken skin. Widely used in tanning research.



REACHED HUMAN TESTING

One of the few compounds here that did reach early human testing.



APPETITE EFFECTS

Reduced appetite is a commonly reported effect.



RELATED APPROVED MEDICINE

A closely related compound went on to become an approved medicine for a different use.

DOSING PROTOCOL

NAUSEA IS THE MOST INTENSE FIRST-DOSE REACTION IN THIS GUIDE

1



RECONSTITUTION

Add 2mL of bacteriostatic water to the 10mg vial.

2



INJECTIONS

Once-daily subcutaneous injection, ideally at bedtime.

3



CYCLE

No formal cycle — a 4-week break after 8 weeks of use is a reasonable, conservative approach.

4



INJECTION SITES

Abdomen, areas with fat. Rotate sites.

WEEK

DOSE

DRAW

Wk 1

First dose

0.1mg

2 units

Wks 2-7

0.25mg

5 units

Wk 8+

Maintenance

0.5-1mg

10-20 units



SOURCE-GUIDE NOTE

Avoid if melanoma runs in your family, you've had it yourself, or you have moles that are changing. Taking it at bedtime helps you sleep through the worst of the nausea.

Once pigment builds,

many people drop from daily to just 1-2 lower doses a week to hold it, rather than continuing daily at the higher maintenance amount.

GOOD TO KNOW



SKIN-DARKENING ACTION

Switches on the hormone pathway that darkens skin pigment.



NO COMPLETED HUMAN TRIAL

The dosing below follows common research practice, not a proven schedule.

STACKS WELL WITH

FROM NOVA'S PRODUCT PAGES · TAP TO JUMP

BPC-157 + TB-500

RECOVERY

Sometimes paired with repair peptides in melanocortin research.

Semax

FOCUS

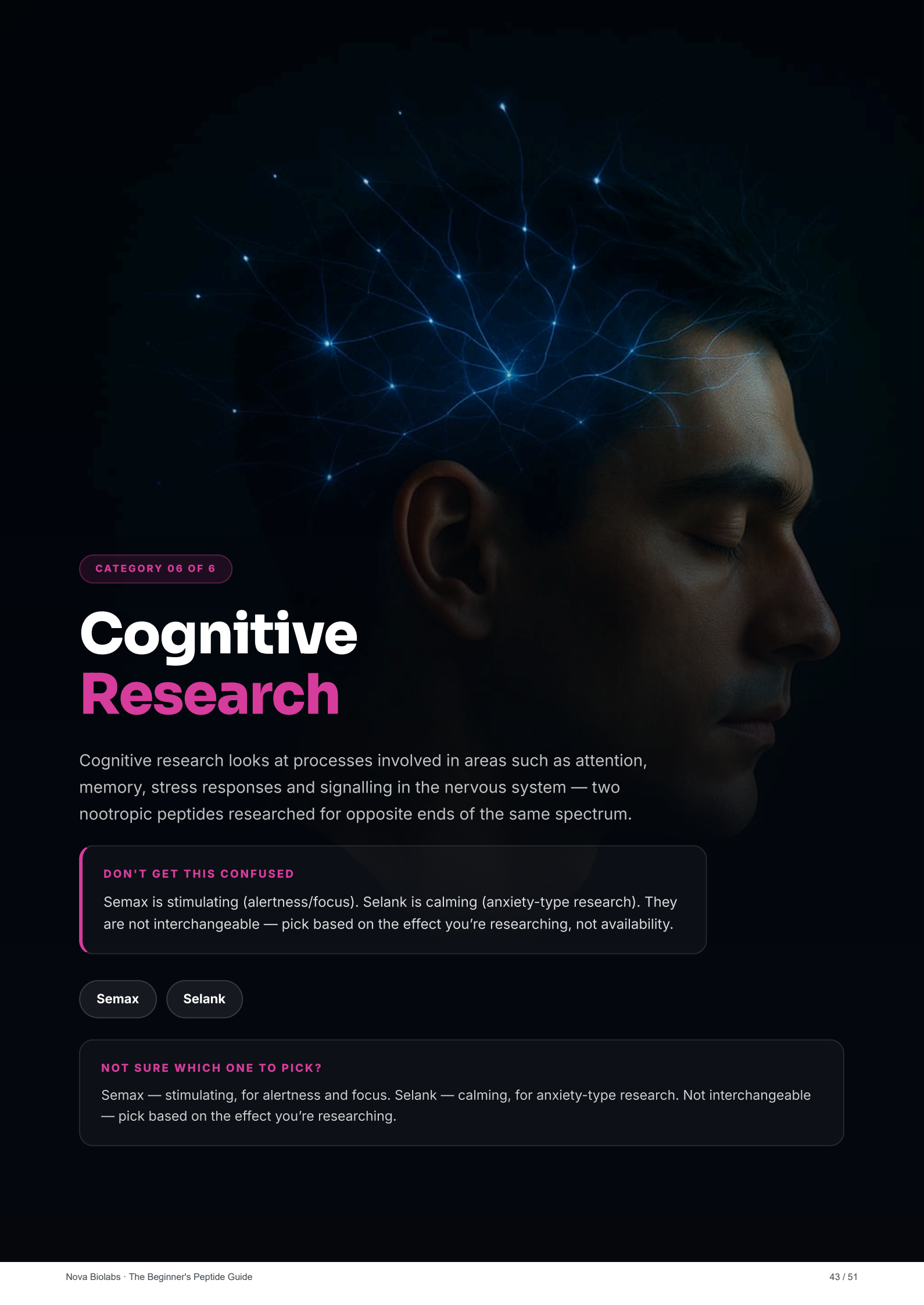
Combines melanocortin research with focus-related research.

Selank

CALM

Occasionally studied alongside for broader nervous-system research.

RESEARCH USE ONLY · STORAGE: PAGE 18 · SAFETY CHECKS: PAGE 48 · NOVABIOLABS.CO.UK/MT2-10MG.HTML



CATEGORY 06 OF 6

Cognitive Research

Cognitive research looks at processes involved in areas such as attention, memory, stress responses and signalling in the nervous system — two nootropic peptides researched for opposite ends of the same spectrum.

DON'T GET THIS CONFUSED

Semax is stimulating (alertness/focus). Selank is calming (anxiety-type research). They are not interchangeable — pick based on the effect you're researching, not availability.

Semax

Selank

NOT SURE WHICH ONE TO PICK?

Semax — stimulating, for alertness and focus. Selank — calming, for anxiety-type research. Not interchangeable — pick based on the effect you're researching.

Semax

Peptide User Guide

ALERTNESS & FOCUS · DECADES OF USE

COGNITIVE

A short peptide developed in Russia, researched for alertness, focus and brain health.

STARTING DOSE

100–200mcg

FREQUENCY

1–3×/day

CYCLE

10–20 days

What it does, in plain English

Semax is studied for how it supports brain-cell signalling and a growth factor called BDNF. It's described as stimulating and focus-boosting, the opposite of Selank, and is used as a nasal spray in Russia.



WHAT IT'S RESEARCHED FOR

BRAIN-CELL SUPPORT

Studied for how it supports brain-cell signalling and a growth factor called BDNF.

DECADES OF REAL-WORLD USE

Used clinically in one country for several decades.

STIMULATING PROFILE

Researched for alertness and focus — the opposite of Selank's calming profile.

FAST-ACTING

Short-lived in the body, though effects are reported to last longer.

DOSING PROTOCOL

COMMON RANGE EXTENDS TO 300–600MCG DAILY

1



RECONSTITUTION

Add 2mL of bacteriostatic water to the 10mg vial.

2



INJECTIONS

Once, or split across 2–3 subcutaneous injections daily. Semax is stimulating, so most people take it earlier in the day, not close to bedtime.

3



CYCLE

10–20 days, then a break of 1–2 weeks.

4



INJECTION SITES

Abdomen, areas with fat. Rotate sites.

WEEK

DOSE

DRAW

Wk 1

First dose

100–200mcg

2–4 units

Wk 2

100–200mcg

2–4 units



SOURCE-GUIDE NOTE

Be more cautious if you have a history of seizures or anxiety, since it's active in the brain and nervous system.

GOOD TO KNOW



BRAIN-CELL SIGNALLING

Researched for its effects on brain-cell growth and signalling.



SHORT-LIVED (~30 MIN)

Clears the body in about half an hour, but people report effects lasting longer, possibly because of the by-products it breaks down into.

Nasal spray vs injection. Semax's original Russian use is as a nasal spray, usually at a higher 200–600mcg per session since less gets absorbed that way. This page covers Nova's injectable vial — don't apply nasal-spray amounts to it.

STACKS WELL WITH

FROM NOVA'S PRODUCT PAGES · TAP TO JUMP

Selank

FOCUS & CALM

The classic pairing: Semax is stimulating, Selank is calming.

NAD+

BRAIN & ENERGY

Focus research alongside cell-energy research.

MOTS-c

BRAIN & ENERGY

Both are studied in cell signalling and occasionally combined.

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Selank

Peptide User Guide

CALMING RESEARCH · ANXIETY-FOCUSED

COGNITIVE

A short peptide developed in Russia, researched for calm and anxiety.

STARTING DOSE

150–250mcg

FREQUENCY

1–3×/day

CYCLE

10–20 days

What it does, in plain English

Selank is studied for calming effects and for how the nervous and immune systems talk to each other. It's described as calming rather than stimulating, the opposite of Semax, and is used as a nasal spray in Russia.



WHAT IT'S RESEARCHED FOR



CALMING PROFILE

Generally calming rather than stimulating — the opposite of Semax.



DEFINED USE CASE

Approved for anxiety-related conditions specifically, giving it a distinct, defined use.



NERVOUS & IMMUNE LINK

Studied for calming effects and for how the nervous and immune systems talk to each other.



FAST-ACTING

Short-lived, with effects typically reported within an hour.

DOSING PROTOCOL

COMMON RANGE EXTENDS TO 250–750MCG DAILY

1



RECONSTITUTION

Add 2mL of bacteriostatic water to the 10mg vial.

2



INJECTIONS

Once, or split across 2–3 subcutaneous injections daily. Selank is calming, so many people take it in the afternoon or evening.

3



CYCLE

10–20 days, then a break of 1–2 weeks.

4



INJECTION SITES

Abdomen, areas with fat. Rotate sites.

WEEK

DOSE

DRAW

Wk 1

First dose

150–250mcg

3–5 units

Wk 2

150–250mcg

3–5 units



SOURCE-GUIDE NOTE

No contraindications are established for this compound.

GOOD TO KNOW



CALMING RESEARCH

Studied for calming, anxiety-reducing effects and for how the immune and nervous systems interact.



COMPARISON WITH SEMAX

The two peptides are often studied together as an example of related compounds with opposite effects.

Nasal spray vs injection. Selank's original Russian use is as a nasal spray, at a higher per-session amount since less gets absorbed that way. This page covers Nova's injectable vial — don't apply nasal-spray amounts to it.

STACKS WELL WITH

FROM NOVA'S PRODUCT PAGES · TAP TO JUMP

Semax

FOCUS & CALM

Calming vs stimulating, compared side by side.

NAD+

BRAIN & ENERGY

Calming-signal research alongside cell-energy research.

Glutathione

BRAIN PROTECTION

Occasionally paired for antioxidant and brain-protection research.

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Quick comparison

All 19 compounds side by side — for deciding before you dive into the detail earlier in this guide. Copied from the Nova member guide's own comparison table.

COMPOUND	CATEGORY	STARTING DOSE	FREQUENCY	ROUTE	BEST TO CHECK WITH A PROFESSIONAL IF...
<u>Tirzepatide</u>	Weight Loss	2.5mg weekly	Once weekly	SC	You or a family member has had thyroid cancer, or you carry the MEN2 gene
<u>Semaglutide</u>	Weight Loss	0.25mg weekly	Once weekly	SC	You or a family member has had thyroid cancer, or you carry the MEN2 gene
<u>Retatrutide</u>	Weight Loss	2mg weekly	Once weekly	SC	You or a family member has had thyroid cancer, or you carry the MEN2 gene
<u>Cagrilintide</u>	Weight Loss	0.3mg weekly	Once weekly	SC	You or a family member has had thyroid cancer, or you carry the MEN2 gene
<u>BPC-157 + TB-500</u>	Tissue Repair	250–500mcg / 2.5–5mg	Daily / 2×weekly	SC / IM	You've had cancer recently, or currently do
<u>GLOW</u>	Tissue Repair	2.8mg daily	Daily or EOD	SC	You've had cancer recently, or currently do
<u>KLOW</u>	Tissue Repair	~3.2mg daily	Daily or EOD	SC	You've had cancer recently, or currently do
<u>CJC-1295 + Ipamorelin</u>	Growth Hormone	100mcg each	2–3× daily	SC	You have an active cancer or diabetic eye disease
<u>Tesamorelin</u>	Growth Hormone	2mg daily	Once daily	SC	You have an active cancer, a pituitary condition, or are pregnant
<u>Somatropin (HGH)</u>	Growth Hormone	1–2iu daily	Daily, or 5-on/2-off	SC	You have an active cancer, diabetic eye disease, or you're recovering from major surgery or a serious illness
<u>GHK-Cu</u>	Longevity	1–2mg daily	Once daily	SC / Topical	You've had cancer recently, or currently do
<u>SS-31 (Elamipretide)</u>	Longevity	4mg daily	Once daily	SC	None established
<u>MOTS-c</u>	Longevity	5mg weekly	1–2× weekly	SC	None established — no human data yet
<u>NAD+</u>	Longevity	50mg, 2–3×/wk	1–3× weekly	SC	None established — inject slowly
<u>Glutathione</u>	Longevity	600–1000mg/session	1–3× weekly	SC / IM	You have asthma
<u>5-Amino-1MQ</u>	Metabolism	2.5mg daily	Once or twice daily	SC	None established — limited human data
<u>MT2 (Melanotan II)</u>	Metabolism	0.1mg test dose	Daily	SC	You've had melanoma, or you have moles that are changing
<u>Semax</u>	Cognitive	100–200mcg	Once or split 2–3×	SC	Seizure or anxiety disorder history
<u>Selank</u>	Cognitive	150–250mcg	Once or split 2–3×	SC	None established — no human RCT

SS-31 storage: –20°C until reconstitution (not 2–8°C). After reconstitution, stable 28 days at 2–8°C — do not refreeze.

Frequently asked questions

Why does it arrive as a powder?

Freeze-drying (lyophilising) makes the compound far more stable to store before it's prepared.

What's the difference between mg and mcg?

mcg (microgram) is 1,000 times smaller than mg (milligram). 1mg = 1,000mcg.

Why are some schedules weekly and others daily?

It depends on how long the compound stays active in the body before it clears — this is set by the research the schedule comes from. See page 4.

Why do I have to use it within 28 days?

Once mixed, a peptide slowly breaks down and every needle puncture risks contamination. 28 days is a cautious safety margin. See page 19.

How much bacteriostatic water should I add?

Most vials use 1–2.5mL. 2mL is the most common because it gives easy-to-read syringe marks. See page 9.

Why are most peptides injected instead of taken as a pill?

Digestion breaks peptides down, and most are too large to pass through the gut or skin. So most research peptides are used by injection under the skin. A few small ones, like collagen and GHK-Cu, are the exception.

Why does purity matter?

Purity is how much of the vial is the compound you expect. It can vary between suppliers and batches, which is why checking the batch certificate of analysis (COA) is worthwhile. See page 48.

What does "reconstitute" mean?

Adding a liquid — bacteriostatic water — to the dry powder to turn it into an injectable solution.

What does "units" mean?

The markings on a standard U-100 insulin syringe. 1mL = 100 units, so 10 units = 0.1mL, on any barrel size.

Why has my vial gone cloudy?

Peptides are fragile: rough mixing, heat, time or contamination can all cloud a vial. Rest it and swirl gently; if it stays cloudy, don't use it. See page 13.

How do I work out how much to draw?

Use the free Nova calculator at novabiolabs.co.uk/calculator, or follow the three-step maths on page 10.

Can I keep unmixed peptide in the freezer?

Yes. Dry powder can be stored at -20°C, which is best for long-term storage. Keep it away from light, and let it reach room temperature before you mix it. Once mixed, fridge only. See page 18.

Where do the peptides in the vial come from?

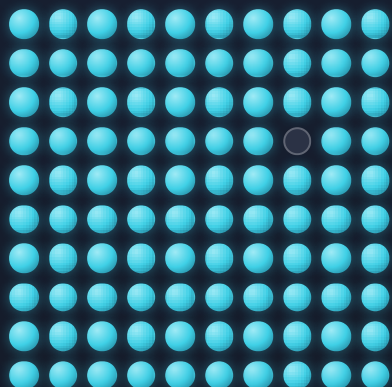
Some peptides come from food, but most compounds in this guide are made in a lab by linking amino acids in a set order to copy a natural peptide. A few larger ones, like growth hormone, are made using DNA technology.

Can I take two peptides at once (stack them)?

Only share a syringe if both are studied pre-mixed that way, like BPC-157 and TB-500. Otherwise inject separately, at different sites, on each one's own timing — see what it stacks with on its own page.

What does “purity” mean?

Purity is simply **how much of the vial is the compound you ordered**, and how much is something else, such as leftovers from manufacturing. Higher is better.



PICTURE 100 TINY PIECES

99% purity means 99 are your compound

The single dark dot is something else. A lower purity means more of those dark dots, and less of what you paid for.

WHY IT MATTERS

You can't see it

A vial can look perfect, with clear liquid and clean powder, and still be lower purity. Only a lab test can tell.

It varies by batch

Each production run (batch) is different. One good batch says nothing about the next one.

It affects your dose

If a vial is less pure than expected, the same dose contains less of the compound you think you are measuring.

THE CERTIFICATE OF ANALYSIS (COA)

A COA is a lab report for one specific batch. It is the proof of purity: it shows the result for that batch, not a blanket claim about every vial ever made.

HPLC purity

The percentage of the sample that is the right compound.

Mass check

Confirms it is the right molecule, not just something that looks similar.

Batch number

Ties the report to your exact vial.

THREE CHECKS YOU CAN DO IN A MINUTE

1

Same batch

The batch number on the certificate matches the number on your vial label.

2

Recent test

The test date is recent, so the result is for the batch in front of you.

3

Purity number

Look at the HPLC purity percentage. Higher is better. If it looks low or is missing, ask us.

Something doesn't match, or you can't find your certificate? Email info@novabiolabs.co.uk with your order reference and batch number and we'll help. Don't use a vial you have doubts about.

Glossary

Lyophilised

Freeze-dried — a way of drying material so it can be stored and mixed later.

Reconstitution

Mixing the powder with a liquid so it can be drawn into a syringe.

Subcutaneous (SC)

Injected just under the skin, not into muscle.

Titration

Starting on a low dose and increasing it gradually over a schedule.

Starting vs. maintenance dose

The starting dose is the small amount you begin on; the maintenance dose is the steady ongoing amount once built up.

Cycle break

A planned block of time off a compound between blocks of use.

Receptor

A structure on a cell that responds to a specific signal, like a lock waiting for its key.

Agonist

Something that switches a receptor on.

IU (International Unit)

A measure of biological activity rather than weight. HGH is dosed in IU, not mg.

Stack

Two or more compounds studied together for a combined goal. Each compound page lists what it is often stacked with.

Clinical trial

A research study in people that tests whether a compound works and is safe. Results are often published in medical journals.

FDA-approved

Approved by the US medicines regulator for a specific use, after formal testing. Approval for one use does not cover every other use.

Hormone

A chemical message the body uses to tell different tissues what to do.

Peptide

A short chain of amino acids — the small building blocks used to make proteins.

In vitro

Research done outside a living body, for example in a lab dish.

In vivo

Research done inside a living organism.

Placebo

A dummy treatment with no active ingredient, used to compare fairly against a real treatment.

Half-life

How long it takes for the amount of a compound in the body to fall by half.

VIAL DETAILS

COMPOUND

VIAL SIZE (MG)

WATER ADDED (ML)

CONCENTRATION (MG/ML)

DATE MIXED

DISCARD BY (DATE MIXED + 28 DAYS)

DOSE RECORD

50 / 51



Stuck on something? We can help.

Questions about mixing, storage, your dose maths or a batch? Nova Biolabs support is happy to help. And follow us on Instagram and TikTok to stay in the loop.

CALCULATOR

Free dosage calculator

novabiolabs.co.uk/calculator — turn any dose into a syringe mark.

EMAIL

Support

info@novabiolabs.co.uk — include your order and batch number.

SHOP

Full range

novabiolabs.co.uk — all 19 compounds from this guide.

WHATSAPP

Chat with us

Quick questions? Message the Nova team.



INSTAGRAM

@novabiolabsuk

Restock alerts and new guides.



TIKTOK

@novabiolabsuk

Restock alerts and new guides.

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