

GHK-Cu Vial Sizes Compared: 5mg, 20mg, 50mg, and 1g — Which One Fits Your Research?

Not every "GHK-Cu vial for sale" listing is telling you the same story. Some show you a purity report before you buy. Others just show you a price and a purity number with nothing to back it up. When you're building a research protocol around a copper peptide, that difference matters a lot more than it looks like on the surface.



Below is a practical breakdown of how GHK-Cu is typically packaged, what separates a documented vial from a vague one, and how to store and reconstitute it correctly once it's on your bench. The specifics here mirror the documentation approach used on the [GHK-Cu 50mg](#) at Ageless Vitality Peptides.

One thing worth stating plainly up front: [ghk cu 50mg for sale](#) in this category is a research chemical, intended strictly for laboratory and in-vitro study by qualified researchers and institutions — not for human use, ingestion, or clinical application.

A Fast Refresher: What GHK-Cu Is and Why the Copper Matters

GHK-Cu is a naturally occurring tripeptide glycine, histidine, lysine carrying a bound copper ion. Researchers first identified it while studying human plasma, after noticing that plasma from younger donors seemed to drive more activity in cultured liver cells than plasma from older donors. GHK-Cu turned out to be a significant piece of that puzzle, and it has stayed central to tissue-remodeling research in the decades since.

The copper isn't incidental to any of this. It functions as a cofactor for enzymes involved in matrix remodeling, including lysyl oxidase, which helps cross-link collagen and elastin fibers. Because the GHK chain binds copper so specifically, the complex behaves in ways that neither free copper nor the bare peptide chain replicate on their own which is exactly why "GHK-Cu" and plain "GHK" aren't treated as interchangeable in research contexts.

Themes that show up repeatedly across the literature include:

- Fibroblast signaling connected to collagen and glycosaminoglycan output
- Gene expression shifts observed in tissue-repair pathways
- Antioxidant and anti-inflammatory behavior in cultured models
- Cell-recruitment activity studied in wound-repair research

Inside the Vial: What You're Actually Buying

A GHK-Cu vial typically holds a lyophilized (freeze-dried) white powder, sealed for shipping stability. Once mixed with bacteriostatic or sterile water, it dissolves readily and takes on the compound's characteristic pale blue tint.

The 50mg Vial: A Common Middle Ground

The 50mg copper peptide vial has become a default pick for a lot of research setups — sizable enough for a multi-session protocol, without the bigger upfront cost of a bulk order. A properly documented 50mg vial should include:

- Purity of $\geq 99\%$, verified by HPLC
- Molecular identity confirmed through mass spectrometry
- A certificate of analysis tied to that exact batch
- Clear reconstitution and storage instructions

The 5mg Vial: Built for Testing the Waters

A GHK-Cu tripeptide 5mg vial works well for smaller cell-culture studies, or simply as a way to test a new supplier's documentation before placing a larger order. The purity standard should be

no different from a bigger vial — only the total quantity changes — making it a reasonable low-risk starting point.

The 1g Vial: For Larger-Scale Work

At the higher end, a 1g quantity is meant for institutional labs or extended research programs that would otherwise mean reordering small vials on a constant loop. Ordering at this volume brings the cost per milligram down noticeably, but it also raises the stakes on sourcing — a purity or contamination issue at this scale touches far more of your material than it would with a single small vial.

Side-by-Side: 5mg vs. 20mg vs. 50mg vs. 1g

Vial Size	Where It Fits	Cost Efficiency
5mg	Supplier trials, small-scope culture work	Highest cost per mg, lowest commitment
20mg	Single, well-defined research protocol	Balanced middle option
50mg	Standard multi-session research use	Strong value at typical volumes
1g	Institutional or long-running programs	Lowest cost per mg, largest order

The 20mg size sits comfortably between a small trial vial and the 50mg standard — a solid pick once you already trust a supplier's documentation but don't need a full 50mg or 1g quantity yet. Across all four sizes, the compound itself shouldn't vary; total mass and price per unit are the only things that should change.

What Separates "Research Grade" From Just a Label

Purity Backed by Real Lab Data

Purity is usually the first thing researchers look at, but a percentage alone doesn't prove much. HPLC data shows how much of a sample is genuinely the target peptide rather than leftover synthesis byproducts, and mass spectrometry confirms the molecule present is actually GHK-Cu rather than something structurally close but incorrect. A trustworthy 50mg-for-sale listing shows both — not a purity claim floating with nothing underneath it.

A Certificate That's Actually Tied to Your Batch

Every legitimate batch should ship with its own certificate of analysis, not a document recycled across unrelated lots. Ageless Vitality Peptides keeps a dedicated [COA Vault](#) where

batch-specific HPLC and MS results can be checked before or after ordering — the kind of access worth expecting from any supplier selling in this space.

Handling It Right: Reconstitution and Storage

Freeze-drying keeps the peptide stable at room temperature for a limited shipping window, but what happens after the vial arrives matters just as much as the manufacturing behind it.

Prior to reconstitution:

- Keep the powder cool and shielded from light
- Refrigeration at 4°C (39°F) works for short-term storage measured in days or weeks
- For anything longer-term, freezing at -80°C (-112°F) preserves stability best

Once reconstituted:

- Mix using bacteriostatic water as directed
- Refrigerate right away at 4°C (39°F)
- Use within 30 days to keep the compound stable
- Protect the solution from light the entire time

Following this closely is what keeps the purity documented on your COA accurate by the time you're actually using the compound in a protocol. Mishandling after delivery remains one of the more common, and entirely avoidable, sources of inconsistent results.

Sourcing GHK-Cu Vials: What to Check Before You Buy

Before comparing prices across listings, check whether purity data, batch-level documentation, and storage instructions are disclosed upfront rather than hidden behind a support request. The [GHK-Cu 50mg product page](#) lists ≥99% HPLC- and MS-verified purity along with direct COA access, which is a reasonable bar for any research-grade purchase.

For researchers sourcing several compounds at once, the [Peptides category](#) at Ageless Vitality Peptides applies that same documentation standard across its full catalog.

Compounds Frequently Paired With GHK-Cu in Research

Protocols centered on tissue repair or broader regenerative signaling often bring GHK-Cu together with:

- [Semax 10mg](#) — studied in neurotrophic signaling research

- [CJC-1295 5mg + Ipamorelin 5mg blend](#) — a growth hormone secretagogue combination referenced in growth-factor studies
- [Sermorelin 5mg](#) — studied in growth hormone-releasing hormone research
- [Thymosin Alpha 1 5mg](#) — studied in immune-response research
- [Epithalon 10mg](#) — studied in cellular aging and telomere-related research

Sourcing every peptide used in a combined protocol from one consistently documented supplier makes it far easier to rule out batch variability when comparing results.

Safety Note

GHK-Cu vials — 5mg, 20mg, 50mg, or 1g alike — are manufactured and sold strictly for laboratory and research purposes. None of these products carry FDA evaluation or approval for human consumption, therapeutic use, or diagnostic application. They're chemical reagents intended for qualified researchers and institutions, not a substitute for medical guidance or clinical treatment.

Wrapping Up

Whether you're looking at a small 5mg trial vial, a standard 50mg copper peptide order, or a 1g bulk purchase, the deciding factor should be documentation, not just sticker price. Verified purity, a batch-specific COA, and clear storage instructions are what actually make a vial worth calling "research grade."

Review current pricing and documentation on the [GHK-Cu 50mg](#) product page, or browse the full [Peptides](#) category at Ageless Vitality Peptides for compounds commonly studied alongside it.

Frequently Asked Questions

Which GHK-Cu vial size do most research setups use?

The 50mg vial is the most common default, offering enough material for a multi-session protocol without a bulk-order price tag. Smaller 5mg or 20mg vials are typical for supplier trials or narrower studies, and 1g quantities suit institutional or long-running work.

Is a 20mg GHK-Cu vial lower quality than a 50mg vial?

No, assuming both come from the same supplier and batch standard. Vial size affects total mass and cost per milligram only — not the compound's purity or identity.

What purity level should a GHK-Cu vial have?

Look for ≥99% purity confirmed via HPLC, with mass spectrometry backing up molecular identity, all tied to a batch-specific certificate of analysis rather than presented as a standalone number.

How should a GHK-Cu vial be stored before and after mixing with water?

Refrigerate for short-term storage before reconstitution, or freeze at -80°C for longer-term storage. After mixing with bacteriostatic water, refrigerate at 4°C, avoid light exposure, and use within 30 days.

Is a 1g GHK-Cu order a good idea for a first purchase?

Generally not. It's better suited to researchers who've already confirmed a supplier's documentation and consistency — a 5mg or 20mg vial is the lower-risk way to start.

Can GHK-Cu vials be used for anything besides research?

No. These products are sold strictly for laboratory and research use and are not approved for human consumption or clinical use of any kind.