

# OC.PEPS

PREMIUM RESEARCH PEPTIDES | SOCIAL BASED | THIRD-PARTY TESTED

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# PEPTIDE QUICK-START GUIDE

For Research Professionals

## WHAT'S INSIDE

- ✓ COA Verification Checklist — what to look for on a legitimate certificate of analysis
- ✓ Reconstitution Protocol — step-by-step guide with concentration tables
- ✓ Storage Guidelines — temperature, shelf life & freeze-thaw rules
- ✓ Compound Quick-Reference — top 12 research peptides at a glance
- ✓ Peptide Stability Guide — degradation factors and mitigation strategies

# 1 — COA VERIFICATION CHECKLIST

A legitimate Certificate of Analysis (COA) is your primary quality assurance tool. Before accepting any research peptide shipment, verify all four points below.

	Item	Notes
✓ PASS	HPLC Chromatogram	Actual graph — not just a purity percentage number. Main peak should be isolated and clearly dominant. Any impurity peaks must be labeled. Minimum acceptable purity: ≥98% for research-grade compounds.
✓ PASS	Mass Spectrometry (MS) Confirmation	Molecular weight should match theoretical MW of the peptide sequence within ±1 Da. This confirms the compound identity beyond purity alone.
✓ PASS	Karl Fischer Water Content	Water content should be <5% by weight for lyophilized peptides. High water content means less actual peptide per milligram — direct impact on experimental reproducibility.
✓ PASS	Endotoxin Test (LAL Assay)	Should read <1 EU/mg for injectable-grade research compounds. Endotoxin contamination is a critical variable in in vivo models.
✓ PASS	Lot-Specific Number on COA	COA lot number must match the lot number printed on your vial. Generic or undated COAs are a significant red flag.
x FAIL	Generic COA with no lot number	Red flag. Indicates a recycled document not specific to your batch.
x FAIL	No MS data — HPLC only	Purity alone does not confirm compound identity. A similar-MW contaminant can produce a clean HPLC trace.
x FAIL	No endotoxin data	Unacceptable for any in vivo research model or cell culture assay.

## 2 — RECONSTITUTION PROTOCOL

Reconstituting lyophilized peptide powder is a straightforward process when executed carefully. Follow this protocol for consistent, reproducible results.

### REQUIRED MATERIALS

Item	Notes
Bacteriostatic Water (BAC Water)	0.9% benzyl alcohol — preferred for multi-use vials. Do not use plain sterile water for multi-use vials.
Insulin Syringe (1 mL, 27–29G)	For precise BAC Water measurement and transfer.
Alcohol Swabs	Sterilize all rubber stoppers before needle insertion.
Cold Storage (2–8°C)	Ready before reconstitution. Do not leave reconstituted solution at room temp.

### STEP-BY-STEP PROCEDURE

<b>Step 1</b>	Remove vials from freezer. Allow peptide vial to reach room temperature (5–10 minutes) before opening — prevents condensation contamination.
<b>Step 2</b>	Wipe the rubber stopper of both vials with a fresh alcohol swab. Allow 30 seconds to air-dry.
<b>Step 3</b>	Draw the calculated volume of BAC Water into the syringe (see concentration table below).
<b>Step 4</b>	Insert the needle into the peptide vial at a 45-degree angle. Direct the liquid stream gently down the inside wall of the vial — do NOT inject directly onto the powder cake.
<b>Step 5</b>	Do not shake or vortex. Gently swirl the vial in a circular motion until the powder is fully dissolved (1–3 minutes). Solution should be clear.
<b>Step 6</b>	Label the vial with date of reconstitution and concentration. Store at 2–8°C immediately.

### CONCENTRATION REFERENCE TABLES

Target concentration 500mcg/mL (0.5mg/mL) — standard for most research protocols:

Vial Size	BAC Water to Add	Final Concentration	Total Volume
2mg	4.0 mL	500 mcg/mL	4.0 mL
5mg	10.0 mL	500 mcg/mL	10.0 mL

10mg	20.0 mL	500 mcg/mL	20.0 mL
20mg	40.0 mL	500 mcg/mL	40.0 mL

Target concentration 1mg/mL — preferred for larger vials and high-dose protocols:

Vial Size	BAC Water to Add	Final Concentration	Total Volume
5mg	5.0 mL	1 mg/mL	5.0 mL
10mg	10.0 mL	1 mg/mL	10.0 mL
20mg	20.0 mL	1 mg/mL	20.0 mL
30mg	30.0 mL	1 mg/mL	30.0 mL

### 3 — STORAGE GUIDELINES

Proper storage is the single most controllable variable in peptide stability. Follow these guidelines to maintain compound integrity throughout your research timeline.

State	Temperature	Duration	Notes
Lyophilized (sealed)	-20°C	Up to 24 months	Optimal long-term storage. Keep away from light and moisture.
Lyophilized (sealed)	+4°C	3–6 months	Acceptable for near-term use. Avoid temperature fluctuation.
Reconstituted in BAC Water	+4°C (refrigerator)	Up to 28 days	Do NOT freeze. BAC provides bacteriostatic protection.
Reconstituted — single aliquots	-20°C (one cycle only)	3–6 months	Freeze immediately post-reconstitution. One freeze-thaw max per aliquot.
Reconstituted — room temperature	Room temp (avoid)	<24 hours	Degradation accelerates rapidly above 8°C. Not recommended.

#### DEGRADATION FACTORS TO AVOID

<b>Freeze-Thaw Cycling</b>	Ice crystal formation mechanically disrupts peptide bonds. Each freeze-thaw event degrades yield. Limit to 1 cycle per aliquot for reconstituted solutions.
<b>Light Exposure</b>	UV light catalyzes oxidation of aromatic residues (Trp, Tyr, Phe). Store in amber vials or opaque containers. Avoid bench exposure during preparation.
<b>Oxidation (oxygen/air)</b>	Methionine and cysteine residues are especially susceptible. Minimize headspace in vials. Some researchers use nitrogen blanketing for sensitive compounds.
<b>Moisture (lyophilized)</b>	Even trace moisture accelerates hydrolysis. Use desiccants in storage containers. Never open cold vials until they have reached room temperature.
<b>Acidic/Basic pH</b>	Most peptides are stable at neutral to slightly acidic pH. BAC water (pH 4.5–7.0) is appropriate for reconstitution. Avoid DMSO unless the compound specifically requires it.

## 4 — COMPOUND QUICK-REFERENCE

Concise reference for 12 of the most actively researched peptide compounds. All research data cited refers to preclinical (in vitro / animal model) findings. For full literature reviews, visit [ocpeps.com/research](https://ocpeps.com/research).

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Compound	Category	Common Research Qty	Storage	Key Research Focus
BPC-157	Recovery / GI	5–10mg	-20°C lyophilized	Pentadecapeptide derived from gastric protein BPC. Preclinical research: tendon/ligament recovery.
TB-500 (Thymosin Beta-4)	Recovery	5–10mg	-20°C lyophilized	Synthetic Thymosin Beta-4. Research: actin sequestration, cell migration, anti-inflammatory.
CJC-1295 No DAC	Hormone / GH Axis	2–5mg	-20°C lyophilized	GHRH analogue (~30 min half-life). Research: pulsatile GH release from pituitary somatotrophs.
Ipamorelin	Hormone / GH Axis	2–5mg	-20°C lyophilized	Selective GHRP / ghrelin receptor agonist. Research: GH release with minimal cortisol release.
Tesamorelin	Hormone / GH Axis	2–5mg	-20°C lyophilized	GHRH analogue with extensive clinical reference data. Preserves physiological GH feedback.
GHK-Cu	Wellness / Skin	50–100mg	-20°C lyophilized	Naturally occurring copper peptide (GHK). Research: tissue remodeling, collagen synthesis, wound healing.
NAD+	Metabolic / Longevity	200–600mg	-20°C (sensitive)	Critical coenzyme. Research: mitochondrial bioenergetics, DNA repair (PARP pathway).
MOTS-C	Metabolic / Mitochondria	5–10mg	-20°C lyophilized	Mitochondria-derived peptide encoded in mtDNA. Research: AMPK activation, insulin sensitivity.
KPV	Anti-inflammatory	5–10mg	-20°C lyophilized	Tripeptide (Lys-Pro-Val) derived from alpha-MSH. Research: gut inflammation models, gut barrier integrity.
Selank	Nootropic	5mg	-20°C lyophilized	Tuftsins analogue. Research: anxiolytic-like effects in rodent models, BDNF modulation.
Semax	Nootropic	5mg	-20°C lyophilized	ACTH 4-7 Pro-Gly-Pro derivative. Research: BDNF/NGF upregulation, neuroprotection.
Epitalon	Longevity	10mg	-20°C lyophilized	Tetrapeptide (Ala-Glu-Asp-Gly). Research: telomerase activation, melatonin cycle regulation.

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