

# KPV

Lys-Pro-Val | Alpha-MSH C-Terminal Tripeptide | Anti-inflammatory

## COMPOUND OVERVIEW

KPV is a C-terminal tripeptide fragment of alpha-Melanocyte-stimulating hormone (α-MSH). It retains the anti-inflammatory properties of the parent peptide while being significantly smaller, affecting its distribution and receptor binding profile compared to full-length α-MSH.

## MECHANISM OF ACTION

KPV inhibits NF-κB activation, a central regulator of pro-inflammatory cytokine production. It also demonstrates direct antimicrobial activity by disrupting microbial cell wall integrity. Melanocortin receptor binding (MC1R) contributes to anti-inflammatory signalling in studied models, with particular application in gut epithelial research.

## RESEARCH APPLICATIONS

- NF-κB inhibition and inflammatory cytokine research
- Gut epithelial integrity and inflammatory bowel disease models
- Antimicrobial peptide mechanism studies
- Melanocortin receptor (MC1R) pharmacology

## EVIDENCE STATUS & KNOWN LIMITATIONS

**Evidence Status:** KPV research is predominantly *in vitro* and animal model based, particularly murine colitis models. Oral delivery challenges including gastric stability and mucosal penetration are active research areas. Human clinical data is very limited. Researchers should review differences in bioavailability between delivery routes before experimental design.

## ANALYTICAL & STORAGE DATA

PURITY	>99.5% by HPLC/MS	PHYSICAL FORM	Lyophilised Powder
STORAGE	2-8 C	SEQUENCE	Lys-Pro-Val (Tripeptide)
RECONSTITUTION	Bacteriostatic Water (USP)	BATCH DOCS	Available on Request

## RECONSTITUTION NOTE

Stable tripeptide. Introduce reconstitution solvent against the vial wall. Allow complete dissolution at rest. Refrigerate post-reconstitution.

**REGULATORY CLASSIFICATION:** All BioUnfolding compounds are strictly intended for laboratory evaluation and *in-vitro* analysis. These materials are not intended for human consumption, veterinary use, or therapeutic application. Researchers are solely responsible for compliance with applicable local regulations including SAHPRA guidelines.

REQUEST BATCH DOCUMENTATION

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