

Certificate of Analysis

Product Name: Chemerin-9, Human

Catalog No.: 7116

Batch No.: 5

CAS Number: 676367-27-4

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₅₄H₆₆N₁₀O₁₃
Batch Molecular Weight: 1063.18
Physical Appearance: White lyophilised solid
Counter Ion: TFA
Solubility: Soluble to 1 mg/ml in water
Storage: Store at -20°C
Peptide Sequence: Tyr-Phe-Pro-Gly-Gln-Phe-Ala-Phe-Ser

2. ANALYTICAL DATA

HPLC: Shows 98.6% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid		Theoretical	Actual	Amino Acid		Theoretical	Actual
Ala		1.00	1.01	Lys			
Arg				Met			
Asx				Phe	3.00	2.97	
Cys				Pro	1.00	1.03	
Glx	1.00	0.98		Ser	1.00	1.01	
Gly	1.00	1.01		Thr			
His				Trp			
Ile				Tyr	1.00	1.00	
Leu				Val			

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Chemerin-9, Human is a potent chemokine-like receptor 1 (CMKLR1; also known as chemerin receptor 23, ChemR23) agonist ($EC_{50} = 7.1$ nM at CMKLR expressed in CHO cells). Corresponds to C-terminal of full length human Chemerin, amino acids 149 - 157. Activates $G_{i/o}$ signaling pathways in vitro; inhibits cAMP production and promotes phospholipase C production and Ca^{2+} mobilization.

Physical and Chemical Properties:Batch Molecular Formula: $C_{54}H_{66}N_{10}O_{13}$

Batch Molecular Weight: 1063.18

Physical Appearance: White lyophilised solid

Peptide Sequence:

Tyr-Phe-Pro-Gly-Gln-Phe-Ala-Phe-Ser

Storage: Store at $-20^{\circ}C$ **Solubility & Usage Info:**

Soluble to 1 mg/ml in water

This product is supplied in lyophilized form. It may appear as a solid, gel or film and be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

Counter Ion: TFA**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a $45-60^{\circ}C$ water bath).

Peptides in solution are much less stable than in lyophilized form. This is especially true for peptides whose sequences contain amino acids such as Cys, Met, Trp, Asn, Gln, and N-terminal Glu.

Therefore we recommend storing peptides in solution for as short a time as possible. Avoid repeated freeze thaw cycles by dividing the peptide solution into aliquots and storing the aliquots at $-20^{\circ}C$. Any portion of an aliquot unused after thawing should be discarded.

Peptides stored in solution can occasionally be susceptible to bacterial degradation. We recommend using sterile solutions or passing the peptide solution through a $0.2 \mu m$ filter to remove potential bacterial contamination whenever possible.

References:

De Henau *et al* (2016) Signaling properties of chemerin receptors CMKLR1, GPR1 and CCRL2. *PLoS One*. **11**. PMID: 27716822.

Wittamer *et al* (2004) The C-terminal nonapeptide of mature chemerin activates the chemerin receptor with low nanomolar potency. *J.Med.Chem.* **279** 9956. PMID: 14701797.

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