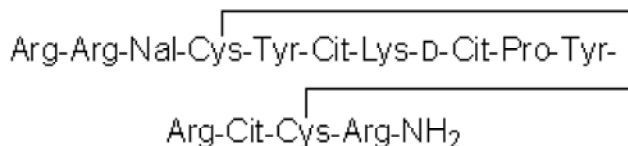


**Product Name:** TC 14012  
**CAS Number:** 368874-34-4

**Catalog No.:** 4300      **Batch No.:** 8

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>90</sub>H<sub>140</sub>N<sub>34</sub>O<sub>19</sub>S<sub>2</sub>  
**Batch Molecular Weight:** 2066.43  
**Physical Appearance:** White lyophilised solid  
**Net Peptide Content:** 70%  
**Counter Ion:** TFA  
**Solubility:** Soluble to 1 mg/ml in water  
**Storage:** Store at -20°C  
**Peptide Sequence:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 96.1% purity  
**Mass Spectrum:** Consistent with structure

**3. AMINO ACID ANALYSIS DATA**

Amino Acid Theoretical Actual			Amino Acid Theoretical Actual		
Ala			Lys	1.00	1.12
Arg	4.00	3.93	Met		
Asx			Phe		
Cys	2.00	Detected	Pro	1.00	1.01
Glx			Ser		
Gly			Thr		
His			Trp		
Ile			Tyr	2.00	1.87
Leu			Val		

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

**Product Name:** TC 14012

**Catalog No.:** 4300

**Batch No.:** 8

CAS Number: 368874-34-4

**Description:**

CXCR4 antagonist and ACKR3 (CXCR7) agonist (EC<sub>50</sub> = 350 nM for CXCR7).

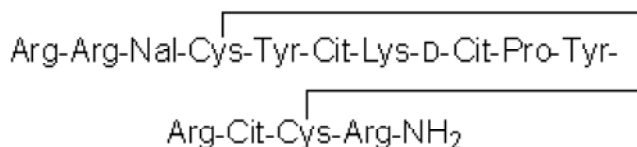
**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>90</sub>H<sub>140</sub>N<sub>34</sub>O<sub>19</sub>S<sub>2</sub>

Batch Molecular Weight: 2066.43

Physical Appearance: White lyophilised solid

**Peptide Sequence:**



**Storage:** Store at -20°C

**Solubility & Usage Info:**

Soluble to 1 mg/ml in water

This product is supplied as a lyophilized solid and may 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.

**Net Peptide Content:** 70% (Remaining weight made up of counterions and residual water).

**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°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°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 µm filter to remove potential bacterial contamination whenever possible.

**References:**

**Gravel et al** (2010) The peptidomimetic CXCR4 antagonist TC14012 recruits beta arrestin to CXCR7: roles of receptor domains. *J.Biol.Chem.* **285** 37939. PMID: 20956518.

**Burger et al** (2005) Small peptide inhibitors of the CXCR4 chemokine receptor (CS184) antagonize the activation, migration, and antiapoptotic responses of CXCL12 in chronic lymphocytic leukemia B cells. *Blood* **106** 1824. PMID: 15905192.

**Tamamura et al** (2003) Synthesis of potent CXCR4 inhibitors possessing low cytotoxicity and improved biostability based on T140 derivatives. *Org.Biomol.Chem.* **1** 3656. PMID: 14649896.

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