bio-techne
TOCRIS

Print Date: Nov 11th 2024

Certificate of Analysis

www.tocris.com

Product Name: **AUNP 12** **Catalog No.: 7831** **Batch No.: 1**

CAS Number: 1353563-85-5

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{142}H_{226}N_{40}O_{48}$

Batch Molecular Weight: 3261.56

Physical Appearance: White lyophilised solid

Counter Ion: TFA

Solubility: Soluble to 2 mg/ml in water

Storage: Store at -20°C

Peptide Sequence:

Ser-Asn-Thr-Ser-Glu-Ser-Phe
|
Ser-Asn-Thr-Ser-Glu-Ser-Phe-Lys-Phe-Arg-Val-Thr-Gln-Leu-Ala-Pro-Lys-Ala-Gln-Ile-Lys-Glu-NH_2

2. ANALYTICAL DATA

HPLC: Shows 99.7% purity

Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid	Theoretical	Actual	Amino Acid	Theoretical	Actual
Ala	2.00	1.97	Lys	3.00	3.05
Arg	1.00	0.99	Met		
Asx	2.00	1.94	Phe	3.00	3.07
Cys			Pro	1.00	1.01
Glx	5.00	4.92	Ser	6.00	5.80
Gly			Thr	3.00	2.84
His			Trp		
Ile	1.00	0.97	Tyr		
Leu	1.00	1.05	Val	1.00	1.01

bio-techne.com
info@bio-techne.com
techsupport@bio-techne.com

North America
Tel: (800) 343 7475

China
info.cn@bio-techne.com
Tel: +86 (21) 52380373

Europe Middle East Africa
Tel: +44 (0)1235 529449

Rest of World
www.tocris.com/distributors
Tel:+1 612 379 2956

Product Name: **AUNP 12** **Catalog No.: 7831** **1**

CAS Number: 1353563-85-5

Description:

AUNP 12 is an immune checkpoint modulator targeting the programmed cell death 1 (PD-1) signaling pathway. It inhibits the interaction between PD-1 and its ligands, PD-L1 and PD-L2. In the mouse splenocyte assay system, AUNP 12 rescues proliferation (EC_{50} values are 17 and 16 nM for PD-L1 and PD-L2, respectively) and enhances T-cell activity by restoring IFNγ release inhibited by PD-L1 and PD-L2 (EC_{50} values are 49 nM and 51 nM respectively). In a mouse Renca renal cell carcinoma model, AUNP 12 shows an additive antitumor effect when combined with Cyclophosphamide (Cat. No. 4091). Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

Batch Molecular Formula: $C_{142}H_{226}N_{40}O_{48}$

Batch Molecular Weight: 3261.56

Physical Appearance: White lyophilised solid

Peptide Sequence:

Ser-Asn-Thr-Ser-Glu-Ser-Phe

Ser-Asn-Thr-Ser-Glu-Ser-Phe-Lys-Phe-Arg-Val-Thr-Gln-Leu-Ala-Pro-Lys-Ala-Gln-Ile-Lys-Glu-NH_2

Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 2 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°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 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:

Omstead *et al* (2022) CSF-1R inhibitor, pexidartinib, sensitizes esophageal adenocarcinoma to PD-1 immune checkpoint blockade in a rat model. Carcinogenesis ***43*** 842. PMID: 35552655.

Sasikumar *et al* (2019) A rationally designed peptide antagonist of the PD-1 signaling pathway as an immunomodulatory agent for cancer therapy. Mol.Cancer Ther. ***18*** 1081. PMID: 31015307.

Zhan *et al* (2016) From monoclonal antibodies to small molecules: the development of inhibitors targeting the PD-1/PD-L1 pathway. Drug Discov.Today ***21*** 1027. PMID: 27094104.