



Certificate of Analysis

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Product Name: Disitertide Catalog No.: 7717 Batch No.: 3

CAS Number: 272105-42-7

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{68}H_{109}N_{17}O_{22}S_2$

Batch Molecular Weight: 1580.83

White lyophilised solid **Physical Appearance:**

Counter Ion: Acetate

Solubility: Soluble to 1 mg/ml in 0.01M PBS (pH 7.4)

Storage: Store at -20°C

Peptide Sequence: Thr-Ser-Leu-Asp-Ala-Ser-Ile-Ile-Trp-Ala-

Met-Met-Gln-Asn

2. ANALYTICAL DATA

HPLC: Shows 96.2% purity Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

| Amino | Acid 7 | Theoretica | ıl Actual | Amino | Acid T | heoretica | I Actua | al |
|-------|--------|-------------------|-----------|-------|--------|-----------|---------|----|

| Ala | 2.00 | 2.02 | Lys | | |
|-----|------|------|------|------|----------|
| Arg | | | Met | 2.00 | 2.01 |
| Asx | 2.00 | 1.99 | Phe | | |
| Cys | | | Pro | | |
| Glx | 1.00 | 1.00 | Ser | 2.00 | 1.95 |
| Gly | | | Thr | 1.00 | 0.99 |
| His | | | Trp | 1.00 | Detected |
| lle | 2.00 | 1.63 | Tyr | | |
| Leu | 1.00 | 1 02 | \/al | | |

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Product Information

Print Date: Mar 12th 2024

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Product Name: Disitertide Catalog No.: 7717 3

CAS Number: 272105-42-7

Description:

Disitertide is a transforming growth factor-beta 1 (TGF- β 1) inhibitor. In vitro, it inactivates TGF- β 1/Smads signaling which reduces cell migration and invasion without affecting cell proliferation in colorectal carcinoma cell lines (Lovo and SW480 cells).

Physical and Chemical Properties:

Batch Molecular Formula: $C_{68}H_{109}N_{17}O_{22}S_2$

Batch Molecular Weight: 1580.83

Physical Appearance: White lyophilised solid

Peptide Sequence:

Thr-Ser-Leu-Asp-Ala-Ser-Ile-Ile-Trp-Ala-Met-Met-Gln-Asn Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 1 mg/ml in 0.01M PBS (pH 7.4)

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: Acetate

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 μ m filter to remove potential bacterial contamination whenever possible.

References:

Qi et al (2021) PROTAC: An effective targeted protein degradation strategy for cancer therapy. Front.Pharmacol. **12** 692574. PMID: 34025443.

Wu et al (2021) LINC00941 promotes CRC metastasis through preventing SMAD4 protein degradation and activating the TGF-β/SMAD2/3 signaling pathway. Cell Death Differ. 28 219. PMID: 32737443.

Feng et al (2020) Degradation of intracellular TGF-ß1 by PROTACs efficiently reverses M2 macrophage induced malignant pathological events. Chem.Commun. 56 2881. PMID: 32037404.

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