bio-techne
TOCRIS

Print Date: Oct 25th 2023

Certificate of Analysis

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Product Name: FAM-DEALAHypYIPMDDDFQLRSF **Catalog No.:** 7452 **Batch No.:** 2

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{122}H_{158}N_{24}O_{39}S$

Batch Molecular Weight: 2616.76

Physical Appearance: Yellow lyophilised solid

Counter Ion: TFA

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

Storage: Store at -20°C

Peptide Sequence: FAM-Asp-Glu-Ala-Leu-Ala-Hyp-Tyr-Ile-Pro-Met-Asp-Asp-Asp-Phe-Gln-Leu-Arg-Ser-Phe-NH_2

2. ANALYTICAL DATA

HPLC: Shows 99.4 % purity

Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid	Theoretical	Actual	Amino Acid	Theoretical	Actual
Ala	2.00	1.94	Lys		
Arg	1.00	1.01	Met	1.00	0.86
Asx	4.00	4.23	Phe	2.00	2.04
Cys			Pro	1.00	1.01
Glx	2.00	2.08	Ser	1.00	0.99
Gly			Thr		
His			Trp		
Ile	1.00	1.07	Tyr	1.00	1.01
Leu	2.00	2.14	Val		

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Product Name: FAM-DEALAHypYIPMDDDFQLRSF **Catalog No.:** 7452 **2**

Description:

FAM-DEALAHypYIPMDDDFQLRSF is a 5-carboxyfluorescein (FAM) labeled HIF-1α peptide. It binds with high affinity to von Hippel-Lindau (VHL) protein (K_D = 3 nM). Can be used to assess ligand binding to VHL in a direct fluorescence polarization (FP) displacement assay. Excitation/emission maxima (λ) = 485/520 nm. This product is a longer peptide version of FAM-DEALA-Hyp-YIPD (Cat. No. 7287).

Physical and Chemical Properties:

Batch Molecular Formula: $C_{122}H_{158}N_{24}O_{39}S$

Batch Molecular Weight: 2616.76

Physical Appearance: Yellow lyophilised solid

Peptide Sequence:

FAM-Asp-Glu-Ala-Leu-Ala-Hyp-Tyr-Ile-Pro-Met-Asp-Asp-Asp-Phe-Gln-Leu-Arg-Ser-Phe-NH_2

Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

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

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.

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.

Other Information:

The HPLC purity stated is the sum of the non-oxidised and oxidised forms of this peptide, with the non-oxidized form >= 90%

References:

Crews *et al* (2018) Identification and Characterization of Von Hippel-Lindau-Recruiting Proteolysis Targeting Chimeras (PROTACs) of TANK-Binding Kinase 1. J.Med.Chem. ***61*** 583. PMID: 28692295.

Buckley *et al* (2012) Targeting the von Hippel-Lindau E3 ubiquitin ligase using small molecules to disrupt the VHL/HIF-1a interaction. J.Am.Chem.Soc. ***134*** 4465. PMID: 22369643.

Ahn *et al* (2009) HIF-1α peptide derivatives with modifications at the hydroxyproline residue as activators of HIF-1α. Bioorg.Med.Chem.Lett. ***19*** 4403. PMID: 19515556.