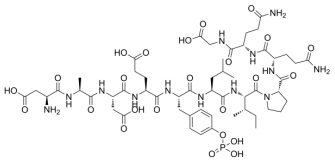
EGF Receptor Substrate 2 (Phospho-Tyr5)



Cat. No.:	HY-P0320
CAS No.:	149261-42-7
Molecular Formula:	$C_{54}H_{82}N_{13}O_{24}P$
Molecular Weight:	1328.28
Sequence:	H-Asp-Ala-Asp-Glu-{pTyr}-Leu-Ile-Pro-Gln-Gln-Gly
Sequence Shortening:	DADE-{pTyr}-LIPQQG
Target:	Phosphatase
Pathway:	Metabolic Enzyme/Protease
Storage:	Sealed storage, away from moisture Powder -80°C 2 years -20°C 1 year * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

SOLVENT & SOLUBILITY

In Vitro

H_2O : 50 mg/mL (37.64 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	0.7529 mL	3.7643 mL	7.5285 mL
5 mM	0.1506 mL	0.7529 mL	1.5057 mL
10 mM	0.0753 mL	0.3764 mL	0.7529 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

EGF Receptor Substrate 2 (Phospho-Tyr5) acetate, a biologically active peptide, is a tyrosine phosphate substrate. EGF Receptor Substrate 2 (Phospho-Tyr5) acetate can be used to detect protein tyrosine phosphatases activity[1].

PROTOCOL

Kinase Assay [1]

Briefly, the assays are performed in 50 µL volumes in a microtiter plate using the generalized PTPase substrates ENDpYINASL and DADEpYLIPQQG (where pY represents phosphotyrosine) and assay buffer containing 25 mM Tris-HCl (pH 7.4), 50 mM NaCl, 2 mM EDTA, 5 mM dithiothreitol, 0.01% Brij 35, and 1 mg of bovine serum albumin/mL. The reactions are started by the addition of 5 µg of either CAV GST-VP2, GST, CAV GST-VP2 containing the C95S mutation, or TLMV GST-ORF2 or 2 units of the positive control T cell protein-tyrosine phosphatase (TC-PTP) in assay buffer. Control reactions are assayed with either ENDpYINASL substrate alone, DADEpYLIPQQG substrate alone, CAV GST-VP2 without substrate, CAV GST-VP2 containing the

C95S mutation without substrate, TLMV GST-ORF2 without substrate, TC-PTP without substrate, or assay buffer with neither enzyme nor substrate. A phosphate standard curve is derived using a supplied phosphate standard. The reactions are terminated by the addition of the malachite green detection reagent.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Kuban-Jankowska A, et al. Inactivation of Protein Tyrosine Phosphatases by Peracids Correlates with the Hydrocarbon Chain Length. Cell Physiol Biochem. 2015;36(3):1069-83.

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