

Data Sheet

Product Name:	740 Y-P	
Cat. No.:	CS-7808	
CAS No.:	1236188-16-1	
Molecular Formula:	C ₁₄₁ H ₂₂₂ N ₄₃ O ₃₉ PS ₃	
Molecular Weight:	3270.70	RQIKIWFQNRRMKWKKSDGG-(PO ₂ -Tyr)-MDMS
Target:	PI3K	
Pathway:	PI3K/Akt/mTOR	
Solubility:	H ₂ O : 20 mg/mL (6.11 mM; Need ultrasonic)	

BIOLOGICAL ACTIVITY:

740 Y-P (PDGFR 740Y-P) is a potent and cell permeable **PI3K** activator. IC₅₀ & Target: PI3K^[1] **In Vitro:** 740 Y-P is a synthetic biotinylated peptide consisting of the 16-amino acid sequence derived from the third helix of the Antennapedia protein in tandem with a 9 amino acid phosphopeptide mimetic of the high affinity p85 binding site on the PDGF receptor. 740 Y-P readily binds GST fusion proteins containing both the N- and C- terminal SH2 domains of p85. 740 Y-P fails to bind GST alone, or a GST fusion protein containing the N- terminal SH2 domain of PLC γ and shows relatively weak binding of a GST fusion proteins containing the SH2 domain of Grb2. The 740 Y-P peptide is also able to specifically interact with p85 in cell lysates as shown by affinity precipitation. 740 Y-P stimulates mitogenesis at the lowest concentration tested (1 mg/mL). The peptide stimulates mitogenesis in both the presence and absence of serum (0.5%), and in the former instance a maximal response observed at 50 mg/mL. 740Y-P peptide to stimulate mitogenesis is highly specific and not a general feature of a cell permeable SH2 domain binding peptides^[1]. **In Vivo:** 740 Y-P is not only internalised in living cells but can also interact with p85 in vivo.^[1]

PROTOCOL (Extracted from published papers and Only for reference)

Cell Assay: ^[1]Following serum starvation, C2 cells are cultured in the presence of the PDGFR 740Y-P peptide at the given concentrations (0, 1, 10, 100 μ g/mL) for 48 h. The mitogenic response is assessed by measurement of the percentage of cells in S-phase^[1].

References:

[1]. Derossi D, et al. Stimulation of mitogenesis by a cell-permeable PI 3-kinase binding peptide.

CAIndexNames:

L-Serine, L-arginyl-L-glutamyl-L-isoleucyl-L-lysyl-L-isoleucyl-L-tryptophyl-L-phenylalanyl-L-glutamyl-L-asparagyl-L-arginyl-L-arginyl-L-methionyl-L-lysyl-L-tryptophyl-L-lysyl-L-lysyl-L-seryl-L- α -aspartylglycylglycyl-O-phosphono-L-tyrosyl-L-methionyl-L- α -aspartyl-L-methionyl-

SMILES:

[RQIKIWFQNRRMKWKKSDGG-(PO₂-Tyr)-MDMS]

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 732-484-9848 Fax: 888-484-5008 E-mail: sales@ChemScene.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA