

PRODUCT INFORMATION



740 Y-P

Item No. 22598

CAS Registry No.: 1236188-16-1

Formal Name: 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-L-serine

MF: $C_{141}H_{222}N_{43}O_{39}PS_3$

FW: 3,270.7

Purity: $\geq 85\%$

UV/Vis.: λ_{max} : 276 nm

Supplied as: A crystalline solid

Storage: $-20^{\circ}C$

Stability: ≥ 2 years

Solubility: 16 and 20 mg/ml in DMSO and dimethyl formamide (DMF), respectively, and 0.5 mg/ml in DMF:PBS (pH 7.2)(1:1).

Arg — Gln — Ile — Lys — Ile — Trp — Phe — Gln — Asn — Arg —

Arg — Met — Lys — Trp — Lys — Lys — Ser — Asp — Gly — Gly —

pTyr — Met — Asp — Met — Ser

Description

740 Y-P is a peptide activator of phosphatidylinositol 3-kinase (PI3K).¹ It binds to the p85 N- and C-terminal SH2 domains of PI3K but not to GST or the N-terminal domain of phospholipase C (PLC) in an affinity purification assay. 740 Y-P is cell-permeable and stimulates mitogenesis in serum-starved C2 cells at a concentration of 50 μ g/ml. This effect is abolished by treatment with 10 μ M wortmannin (Item No. 10010591), a PI3K inhibitor, indicating 740 Y-P is interacting specifically with PI3K in cells. 740 Y-P also reverses inhibition of PI3K by schisandrin B in U251 and U87 melanoma cells, inducing expression of phosphorylated mammalian target of rapamycin (p-mTOR) and matrix metalloproteinase-9 (MMP-9).²

References

1. Derossi, D., Williams, E.J., Green, P.J., *et al.* Stimulation of mitogenesis by a cell-permeable PI 3-kinase binding peptide. *Biochem. Biophys. Res. Commun.* **251**(1), 148-152 (1998).
2. Jiang, Y., Zhang, Q., Bao, J., *et al.* Schisandrin B suppresses glioma cell metastasis mediated by inhibition of mTOR/MMP-9 signal pathway. *Biomed. Pharmacother.* **74**, 77-82 (2015).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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