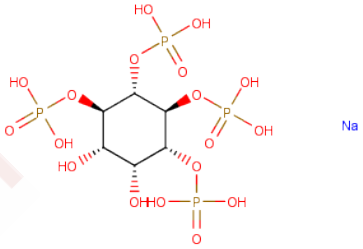
Data Sheet (Cat.No.T35933)

TargetMol

D-myo-Inositol-1,4,5,6-tetraphosphate (sodium salt)

Chemical Properties



CAS No. : 157542-47-7

Formula: C6H12Na4O18P4

Molecular Weight: 588

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	D-myo-Inositol-1,4,5,6-tetrahosphate (sodium salt) (Ins(1,4,5,6)-P4) is one of several different inositol oligophosphate isomers implicated in signal transduction. Production of Ins(1,4,5,6)-P4 by intestinal epithelial cells increases approximately 2-14 fold, depending on the strain and incubation time, following infection with Salmonella.[1] D-myo-Inositol-1,4,5,6-tetraphosphate (sodium salt) (Ins(1,4,5,6)-P4) is one of several different inositol oligophosphate isomers implicated in signal transduction. Production of Ins(1,4,5,6)-P4 by intestinal epithelial cells increases approximately 2-14 fold, depending on the strain and incubation time, following infection with Salmonella. Ins (1,4,5,6)-P4 antagonizes epidermal growth factor (EGF) signalling through the phosphatidylinositol 3-kinase pathway. Ins(1,4,5,6)-P4 (tested as the D/L racemic mixture) is ~1,000-fold less potent than Ins(1,4,5)-P3 at initiating Ca2+ release when injected into Xenopus oocytes.[2]
Targets(IC50)	Others,Calcium Channel

Solubility Information

Solubility	H2O: 50 mg/mL (85.03 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7007 mL	8.5034 mL	17.0068 mL
5 mM	0.3401 mL	1.7007 mL	3.4014 mL
10 mM	0.1701 mL	0.8503 mL	1.7007 mL
50 mM	0.034 mL	0.1701 mL	0.3401 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Eckmann, L., Rudolf, M.T., Ptasznik, A., et al. D-myo-Inositol 1,4,5,6-tetrakisphosphate produced in human intestinal epithelial cells in response to salmonella invasion inhibits phosphoinositide 3-kinase signaling pathways. Proceedings of the National Academy of Sciences of the United States of America 94, 14456-14460 (1997).

DeLisle, S., Radenberg, T., Wintermantel, M.R., et al. Second messenger specificity of the inositol trisphosphate receptor: Reappraisal based on novel inositol phosphates. American Journal of Physiology.Cell Physiology 35, C429-C436 (1994).