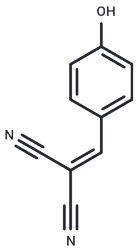
Data Sheet (Cat.No.T34973)

TargetMol

Tyrphostin 8

Chemical Properties



CAS No. : 3785-90-8

Formula: C10H6N2O

Molecular Weight: 170.17

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	Tyrphostin 8(4-Hydroxybenzylidenemalononitrile) is a potent GTPase inhibitor that inhibits EGFR kinase with an IC50 of 560 μM.Tyrphostin 8 inhibits protein serine/threonine calmodulin phosphatases (IC50=21 μM), enhances transferrin receptor-mediated transcytosis in Caco-2 cells, and increases the hypoglycemic effect of oral insulin-transferrin. hypoglycemic effect.
Targets(IC50)	EGFR,GTPase,Phosphatase,Ras
In vitro	Pretreated for 20 minutes at concentrations ranging from 10 to 100 μM, Tyrphostin 8 blocks Carbachol-initiated PKCδ tyrosine phosphorylation and ERK1/2 activation in parotid acinar cells[1]. Additionally, at concentrations of 10-100 μM, Tyrphostin 8 induces a rapid and substantial increase in the basal O2 consumption of parotid acinar cells[1]. Furthermore, at a concentration of 100 μM, Tyrphostin 8 reduces parotid ATP content by approximately 90%[1]. In another context, Tyrphostin 8 enhances the apical-to-basolateral transport of insulin-transferrin conjugate by promoting transferrin receptor-mediated transcytosis in filter-grown Caco-2 cell monolayers[2].
In vivo	In Streptozotocin-induced diabetic rats, Tyrphostin 8 enhances the glucose-lowering effect of insulin-transferrin[2].

Solubility Information

Solubility	DMSO: 50 mg/mL (293.82 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.8765 mL	29.3824 mL	58.7648 mL
5 mM	1.1753 mL	5.8765 mL	11.753 mL
10 mM	0.5876 mL	2.9382 mL	5.8765 mL
50 mM	0.1175 mL	0.5876 mL	1.1753 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

Soltoff SP. Evidence that tyrphostins AG10 and AG18 are mitochondrial uncouplers that alter phosphorylation-dependent cell signaling. J Biol Chem. 2004 Mar 19;279(12):10910-8.

Xia CQ, et, al. Tyrphostin-8 enhances transferrin receptor-mediated transcytosis in Caco-2- cells and inreases hypoglycemic effect of orally administered insulin-transferrin conjugate in diabetic rats. Pharm Res. 2001 Feb;18 (2):191-5.

Martin BL. Inhibition of calcineurin by the tyrphostin class of tyrosine kinase inhibitors. Biochem Pharmacol. 1998 Aug 15;56(4):483-8.