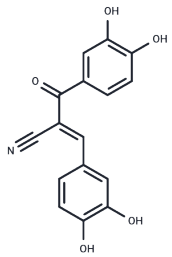
Data Sheet (Cat.No.T67707)

TargetMol

Tyrphostin AG 538

Chemical Properties



CAS No. : 133550-18-2

Formula: C16H11NO5

Molecular Weight: 297.26

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 AG 538 is a chalcone compound, an IGF-1 receptor kinase inhibitor (IC_50 : for 400 nM) that is potent, cell-permeable, reversible, and competitive.
Targets(IC50)	IGF-1R
In vitro	Experimentally it is indeed found that AG 538 does not compete with ATP but competes with the IGF-1R substrate. Both AG 538 and I-OMe AG 538 inhibit IGR-1R autophosphorylation in intact cells in a dose-dependent manner. Both compounds inhibit the activation of the downstream targets PKB and Erk2.[1]
In vivo	Typical assays used to discover and analyze small molecules that inhibit the hepatitis C virus (HCV) NS3 helicase yield few hits and are often confounded by compound interference. FP-based assay was chosen to screen Sigma's Library of Pharmacologically Active Compounds (LOPAC) for compounds that inhibit NS3-DNA complex formation. Four LOPAC compounds inhibited the FP-based assay: aurintricarboxylic acid (ATA) (IC50=1.4μM), suramin sodium salt (IC50=3.6μM), NF 023 hydrate (IC50=6.2μM) and tyrphostin AG 538 (IC50=3.6μM).[2]

Solubility Information

Solubility	DMSO: 4.5 mg/mL (15.14 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.3641 mL	16.8203 mL	33.6406 mL
5 mM	0.6728 mL	3.3641 mL	6.7281 mL
10 mM	0.3364 mL	1.682 mL	3.3641 mL
50 mM	0.0673 mL	0.3364 mL	0.6728 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

Blum G, et al. Substrate competitive inhibitors of IGF-1 receptor kinase. Biochemistry. 2000;39(51):15705-15712.
Mukherjee S, et al. Identification and analysis of hepatitis C virus NS3 helicase inhibitors using nucleic acid binding assays. Nucleic Acids Res. 2012;40(17):8607-8621.