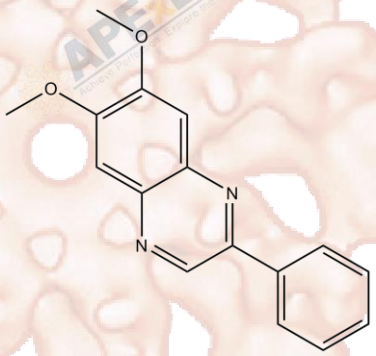
Product Data Sheet

Tyrphostin AG 1296

Cat. No.:	A2477
CAS No.:	146535-11-7
Formula:	C16H14N2O2
M.Wt:	266.29
Synonyms:	
Target:	Tyrosine Kinase
Pathway:	PDGFR
Storage:	Store at -20°C



Solvent & Solubility

In Vitro

insoluble in H2O; ⩾2.8 mg/mL in EtOH with ultrasonic; ⩾6.65 mg/mL in DMSO

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	3.7553 mL	18.7765 mL	37.5530 mL
5 mM	0.7511 mL	3.7553 mL	7.5106 mL
10 mM	0.3755 mL	1.8777 mL	3.7553 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	PDGFR inhibitor,selective and ATP-competitive
IC_{50} & Target	0.3 μM-0.5 μM (PDGFR)

In Vitro

Cell Viability Assay

Cell Line:	Swiss 3T3 cells, porcine aortic endothelial cells, sis-transformed cells
Preparation method:	The solubility of this compound in DMSO is > 6.7mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	6-8 h

	Applications:	AG1296 (0.1-5 μM) dose-dependently inhibited the activity of PDGF receptor kinase in Swiss 3T3 cell membranes. AG1296 inhibited PDGF receptor autophosphorylation with an IC50 of 0.3-0.5 μM. AG1296 was also highly inhibitory towards PDGF-induced mitogenesis. AG1296 inhibited the mitogenic effect of basic FGF on Swiss 3D cells, albeit with an IC50 of 12.3 ± 3.1 μM. AG1296 potently inhibited PDGF-induced cell growth (IC50: 3.2 μM). In porcine aortic endothelial cells, AG1296 inhibited autophosphorylation of both human PDGFα- and PDGFβ-receptor and inhibited equipotently PDGFα- and PDGFβ-receptor -dependent DNA synthesis in cells transfected with either receptor. AG1296 (5-50 μM) potently inhibited the growth of the sis-transformed NIH 3T3 cells.
In Vivo	**Animal experiment**	
	Applications:	
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. Zhang X, Zhao F, et al. "PDGF-mediatedPI3K/AKT/β-catenin signaling regulates gap junctions in corpus cavernosum smoothmuscle cells." Exp Cell Res. 2017 Nov 22. pii: S0014-4827(17)30627-4.PMID:29174980

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References

[1]. Kovalenko M, Gazit A, Bhmer A, et al. Selective platelet-derived growth factor receptor kinase blockers reverse sis-transformation[J]. Cancer Research, 1994, 54(23): 6106-6114.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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