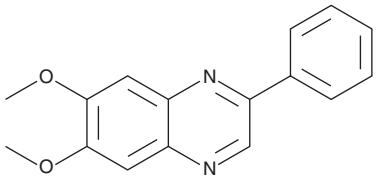
PRODUCT INFORMATION

AG-1296

Item No. 10010592

CAS Registry No.:	146535-11-7
Formal Name:	6,7-dimethoxy-2-phenyl-quinoxaline
Synonym:	Tyrphostin AG-1296
MF:	$C_{16}H_{14}N_2O_2$
FW:	266.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 233, 264, 367 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

AG-1296 is supplied as a crystalline solid. A stock solution may be made by dissolving the AG-1296 in the solvent of choice, which should be purged with an inert gas. AG-1296 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of AG-1296 in these solvents is approximately 3 and 5 mg/ml, respectively.

AG-1296 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, AG-1296 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. AG-1296 has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Protein tyrosine kinase (PTK) inhibitors are potential antiproliferative agents for diseases caused by the hyperactivity of PTKs. Tyrphostins are a class of antiproliferative compounds which act as PTK blockers. PTK inhibitors specific for platelet-derived growth factor (PDGF) receptor kinase could help in the treatment of atherosclerosis, restenosis, pulmonary fibrosis, and gliomas.[1] AG-1296 is a potent and selective inhibitor of PDGF receptor kinase with an IC_{50} value of about 0.4 µM both *in vitro* and in cells (Swiss 3T3 cells).[2] It inhibits ligand-stimulated DNA synthesis in platelet-derived growth factor receptor and stem cell factor/kit receptor transfected cells with an IC_{50} values of 1.5 and 1.8 µM, respectively. [2] Treatment of sis oncogene transfected NIH3T3 cells with AG-1296 reverses the transformed phenotype.[2]

References

1. Levitzki, A. and Gazit, A. Tyrosine kinase inhibition: An approach to drug development. *Science* **267(5205)**, 1782-1788 (1995).
2. Kovalenko, M., Gazit, A., Böhmer, A., *et al.* Selective platelet-derived growth factor receptor kinase blockers reverse sis-transformation. *Cancer Res.* **54(23)**, 6106-6114 (1994).

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