

PF-04859989

Chemical Properties

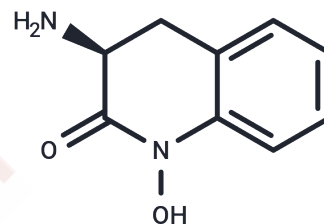
CAS No. : 34783-48-7

Formula: C₉H₁₀N₂O₂

Molecular Weight: 178.19

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	PF-04859989 is a brain-penetrable irreversible inhibitor of kynurenine amino transferase II. PF-04859989 is ~1000-fold selective for KAT II over human KAT I, KAT III, and KAT IV. PF-04859989 has IC ₅₀ values of 23 nM for hKAT II and 263 nM for rKAT II.
Targets(IC ₅₀)	Others

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.612 mL	28.0599 mL	56.1199 mL
5 mM	1.1224 mL	5.612 mL	11.224 mL
10 mM	0.5612 mL	2.806 mL	5.612 mL
50 mM	0.1122 mL	0.5612 mL	1.1224 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

Nematollahi A, Sun G, Jayawickrama GS, Hanrahan JR, Church WB. Study of the Activity and Possible Mechanism of Action of a Reversible Inhibitor of Recombinant Human KAT-2: A Promising Lead in Neurodegenerative and Cognitive Disorders. *Molecules*. 2016 Jun 29;21(7). pii: E856. doi: 10.3390/molecules21070856. PubMed PMID: 27367665.

Linderholm KR, Alm MT, Larsson MK, Olsson SK, Goiny M, Hajos M, Erhardt S, Engberg G. Inhibition of kynurenine aminotransferase II reduces activity of midbrain dopamine neurons. *Neuropharmacology*. 2016 Mar;102:42-7. doi: 10.1016/j.neuropharm.2015.10.028. Epub 2015 Oct 24. PubMed PMID: 26514401.

Kozak R, Campbell BM, Strick CA, Horner W, Hoffmann WE, Kiss T, Chapin DS, McGinnis D, Abbott AL, Roberts BM, Fonseca K, Guanowsky V, Young DA, Seymour PA, Dounay A, Hajos M, Williams GV, Castner SA. Reduction of brain kynurenic acid improves cognitive function. *J Neurosci*. 2014 Aug 6;34(32):10592-602. doi: 10.1523/JNEUROSCI.1107-14.2014. PubMed PMID: 25100593.

Koshy Cherian A, Gritton H, Johnson DE, Young D, Kozak R, Sarter M. A systemically-available kynurenine aminotransferase II (KAT II) inhibitor restores nicotine-evoked glutamatergic activity in the cortex of rats. *Neuropharmacology*. 2014 Jul;82:41-8. doi: 10.1016/j.neuropharm.2014.03.004. Epub 2014 Mar 16. PubMed PMID: 24647121; PubMed Central PMCID: PMC4372264.

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