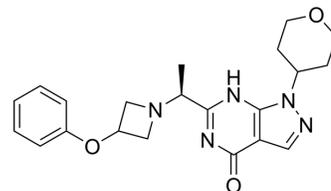


## (S)-PF-04449613

<b>Cat. No.:</b>	HY-12788A		
<b>Molecular Formula:</b>	C <sub>21</sub> H <sub>25</sub> N <sub>5</sub> O <sub>3</sub>		
<b>Molecular Weight:</b>	395.45		
<b>Target:</b>	Phosphodiesterase (PDE)		
<b>Pathway:</b>	Metabolic Enzyme/Protease		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 100 mg/mL (252.88 mM; Need ultrasonic)

Concentration	Mass			
	1 mg	5 mg	10 mg	
1 mM	2.5288 mL	12.6438 mL	25.2876 mL	
5 mM	0.5058 mL	2.5288 mL	5.0575 mL	
10 mM	0.2529 mL	1.2644 mL	2.5288 mL	

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

### BIOLOGICAL ACTIVITY

#### Description

(S)-PF-04449613 is the left-handed isomer of PF-04449613 (HY-12788). PF-04449613 is a selective PDE9A inhibitor with an IC<sub>50</sub> of 22 nM. PF-04449613 improves motor learning ability in a mouse model<sup>[1][2]</sup>.

#### IC<sub>50</sub> & Target

IC<sub>50</sub>: 22 nM (PDE9A)<sup>[1]</sup>

### REFERENCES

[1]. Claffey MM, et al. Application of structure-based drug design and parallel chemistry to identify selective, brain penetrant, in vivo active phosphodiesterase 9A inhibitors. *J Med Chem.* 2012 Nov 8;55(21):9055-68.

[2]. Lai B, et al. The Phosphodiesterase 9 Inhibitor PF-04449613 Promotes Dendritic Spine Formation and Performance Improvement after Motor Learning. *Dev Neurobiol.* 2018 Sep;78(9):859-872.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA