# **Product** Data Sheet

## PF-04449613

Cat. No.: HY-12788 CAS No.: 1236858-52-8

Molecular Formula:  $C_{21}H_{25}N_5O_3$ Molecular Weight: 395.45

Phosphodiesterase (PDE) Target: Pathway: Metabolic Enzyme/Protease

Powder

-20°C In solvent -80°C 6 months

-20°C 1 month

3 years

# **SOLVENT & SOLUBILITY**

In Vitro

Storage:

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

Preparing Stock Solutions	Solvent Mass Concentration	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	PF-04449613 is a selective PDE9A inhibitor with an IC50 of 22 nM[1]. PF-04449613 improved motor learning ability in a mouse model[2].
IC <sub>50</sub> & Target	PDE9A 22 nM (IC <sub>50</sub> )

#### **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.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$ 

Tel: 609-228-6898 Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

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

Page 2 of 2 www.MedChemExpress.com