

## NSI-189 Phosphate

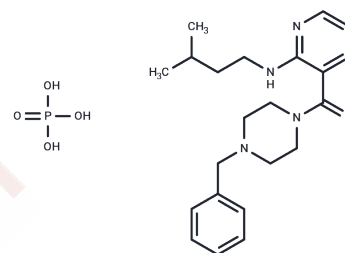
## Chemical Properties

CAS No. : 1270138-41-4

Formula: C22H33N4O5P

Molecular Weight: 464.5

Storage: Keep away from moisture, Keep away from direct sunlight  
 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	NSI-189 Phosphate is a novel neurogenic molecule with pleiotropic properties, including antidepressant, procognitive, synaptoplastic, and neurotrophic activities demonstrated in preclinical studies. Its antidepressant activity is monoamine-independent.
Targets(IC50)	Others, Trk receptor
In vivo	NSI-189 actively stimulated remodeling of the stroke brain. Parallel in vitro studies further probed this remodeling process and demonstrated that oxygen glucose deprivation and reperfusion (OGD/R) initiated typical cell death processes, which were reversed by NSI-189 treatment characterized by significant attenuation of OGD/R-mediated hippocampal cell death and increased Ki67 and MAP2 expression, coupled with upregulation of neurogenic factors such as BDNF and SCF. These findings support the use of oral NSI-189 as a therapeutic agent well beyond the initial 6-hr time window to accelerate and enhance the overall functional improvement in the initial 6 months post stroke[1].

## Solubility Information

Solubility	DMSO: 65 mg/mL (139.94 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
------------	---------------------------------------------------------------------------------------------------------------------------

### Preparing Stock Solutions

---

	1mg	5mg	10mg
1 mM	2.1529 mL	10.7643 mL	21.5285 mL
5 mM	0.4306 mL	2.1529 mL	4.3057 mL
10 mM	0.2153 mL	1.0764 mL	2.1529 mL
50 mM	0.0431 mL	0.2153 mL	0.4306 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

Tajiri N , Quach D M , Kaneko Y , et al. NSI-189, a small molecule with neurogenic properties, exerts behavioral, and neurostructural benefits in stroke rats[J]. Journal of Cellular Physiology, 2017.

Karl K Johe, Gary Kay, Santosh Kumar, et al. NSI-189 phosphate, a novel neurogenic compound, selectively benefits moderately depressed patients: A post-hoc analysis of a phase 2 study of major depressive disorder. Ann Clin Psychiatry. 2020 Aug;32(3):182-196.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel: 781-999-4286 E\_mail: info@targetmol.com Address: 34 Washington Street, Wellesley Hills, MA 02481