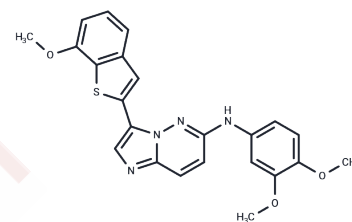


## MLK-IN-1

## Chemical Properties

CAS No. :	1627729-62-7
Formula:	C <sub>23</sub> H <sub>20</sub> N <sub>4</sub> O <sub>3</sub> S
Molecular Weight:	432.5
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	MLK-IN-1 is a potent and selective mixed-lineage kinase 3 (MLK-3) inhibitor, showing excellent brain penetration and high specificity for MLK-3. MLK-IN-1 at 100 nM supports sustained axonogenesis in cultures challenged with HIV-1 Tat-activated microglia and protects neuronal cells from Tat-induced damage, establishing it as a valuable probe for neuroinflammation and neurodegeneration research.
Targets(IC50)	MLK
In vitro	MLK-IN-1 (100 nM) was pretreated 20 minutes before HIV-1 Tat treatment, which could promote sustained axonal outgrowth of neurons under the condition of Tat-activated microglia and antagonize the damaging effects of HIV-Tat in vitro [1].

## Solubility Information

Solubility	DMSO: 50 mg/mL (115.61 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3121 mL	11.5607 mL	23.1214 mL
5 mM	0.4624 mL	2.3121 mL	4.6243 mL
10 mM	0.2312 mL	1.1561 mL	2.3121 mL
50 mM	0.0462 mL	0.2312 mL	0.4624 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

Val S. Goodfellow, et al. Mixed lineage kinase inhibitors and method of treatments. Patent US20140256733A1.

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

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