

LFHP-1c

## Chemical Properties

CAS No. : 2102347-47-5

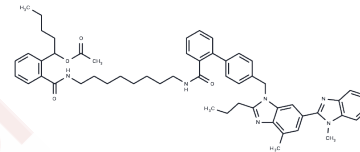
Formula: C55H64N6O4

Molecular Weight: 873.13

Store at low temperature

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	LFHP-1c is a novel PGAM5 inhibitor that shows neuroprotective activity in an ischemic stroke model, preventing BBB destruction after transient middle cerebral artery occlusion (tMCAO) in rats. LFHP-1c can be used to study cerebral ischemic stroke.
Targets(IC50)	Phosphatase, Phospholipase
In vitro	In primary rat brain microvascular endothelial cells (rBMECs), LFHP-1c (2 $\mu$ mol/L; 1 hour) binds to PGAM5, facilitating the nuclear translocation of NRF2[1].
In vivo	In the nonhuman primate <i>Macaca fascicularis</i> model with tMCAO, LFHP-1c (3 mg/kg, 1 mL/kg; intravenous injection; at 4 h, 1, 2, 3, 4, 5, 6, and 7 days after tMCAO onset) reduced infarct volume, brain edema, and neurological deficits in the transient MCAO model in <i>M. fascicularis</i> [1].

## Solubility Information

Solubility	DMSO: 80 mg/mL (91.62 mM), Sonication is recommended. ( $< 1$ mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 3.3 mg/mL (3.78 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	1.1453 mL	5.7265 mL	11.453 mL
5 mM	0.2291 mL	1.1453 mL	2.2906 mL
10 mM	0.1145 mL	0.5727 mL	1.1453 mL
50 mM	0.0229 mL	0.1145 mL	0.2291 mL

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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

Gao C, et al. A novel PGAM5 inhibitor LFHP-1c protects blood-brain barrier integrity in ischemic stroke. Acta Pharm Sin B. 2021 Jul;11(7):1867-1884.

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