# Data Sheet (Cat.No.T40063)



#### CBR-470-1

## **Chemical Properties**

CAS No.: 2416095-06-0

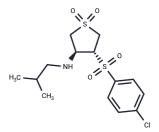
Formula: C14H20ClNO4S2

Molecular Weight: 365.9

Appearance: no data available

Storage: store at low temperature

Powder: -20°C for 3 years | In solvent: -80°C for 1 year



## **Biological Description**

Description	CBR-470-1 is a potent inhibitor of glycolytic phosphoglycerate kinase 1 (PGK1) that activates NRF2 by increasing methylglyoxal levels. CBR-470-1 is a non-covalent Nrf2 activator with neuroprotective activity that protects SH-SY5Y neuronal cells from MPP+-induced cytotoxicity by activating the Keap1-Nrf2 cascade. cytotoxicity induced by MPP+.
Targets(IC50)	Nrf2
In vitro	In IMR32 cells, CBR-470-1, when applied for 24 hours at concentrations ranging from 0.01 to 10 µM, demonstrates an EC50 of 962 nM in the ARE-LUC reporter assay[1]. Furthermore, CBR-470-1 induces a dose- and time-dependent accumulation of Nrf2 protein in IMR32 cells when administered at concentrations between 0.5 and 20 µM over a period of 1 to 24 hours[1]. In SH-SY5Y cells, a 4-hour treatment with CBR-470-1 at 10 µM activates the Nrf2 signaling cascade[2]. Moreover, a 2-hour exposure to CBR-470-1 at 10 µM inhibits MPP+-induced oxidative injury in SH-SY5Y neuronal cells[2].

## **Solubility Information**

Solubility	DMSO: 100 mg/mL(273.30 mM), Sonication is recommended.	
	(< 1 mg/ml refers to the product slightly soluble or insoluble)	

#### **Preparing Stock Solutions**

	1mg	5mg	10mg
1 mM	2.733 mL	13.6649 mL	27.3299 mL
5 mM	0.5466 mL	2.733 mL	5.466 mL
10 mM	0.2733 mL	1.3665 mL	2.733 mL
50 mM	0.0547 mL	0.2733 mL	0.5466 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.

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## Reference

Zheng J, et, al. PGK1 inhibitor CBR-470-1 protects neuronal cells from MPP+. Aging (Albany NY). 2020 Jul 10;12(13): 13388-13399.



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