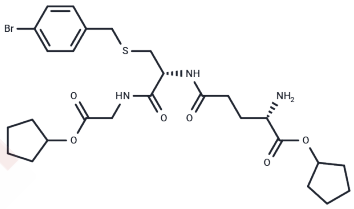
Data Sheet (Cat.No.T24598)

TargetMol

BrBzGCp2

Chemical Properties



CAS No. : 166038-00-2

Formula: C27H38BrN3O6S

Molecular Weight: 612.58

Storage: Store at low temperature
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	BrBzGCp2 (p BrBzGSH(Cp)2) is an inhibitor of glyoxalase 1 (GLO1) with antitumor and neuroprotective activity. It can alleviate anxiety and be used in neurodegenerative disease research.
Targets(IC50)	Glyoxalase
In vitro	BrBzGCp2 is an inhibitor of glyoxalase 1 (GLO1) with a GC50 of 4.23 μM in HL-60 cells. [1]
In vivo	BrBzGCp2 demonstrated an increase in dwell time in the central region of mice in open field (OF) experiments, while not significantly altering the distance traveled. GLO1 inhibition attenuated anxiety-like behavior by increasing methylglyoxal (MG) concentration. [2] Pretreatment with BrBzGCp2 shortens seizure duration. [3] BrBzGCp2 injections reduced anxiety levels in mice, and less anxiety and fear led to a greater willingness to explore unknown regions, suggesting that inhibition of GLO1 activity has a positive effect on anxiety relief. Treatment with BrBzGCp2 also restored the inhibitory effect of valproic acid (VPA) on GABAA receptor activation. [4]

Solubility Information

Solubility	DMSO: 200 mg/mL (326.49 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6324 mL	8.1622 mL	16.3244 mL
5 mM	0.3265 mL	1.6324 mL	3.2649 mL
10 mM	0.1632 mL	0.8162 mL	1.6324 mL
50 mM	0.0326 mL	0.1632 mL	0.3265 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

Thornalley PJ, et al. Antitumor activity of S-(p-bromobenzyl)glutathione diesters in vitro: a structure-activity study. J Med Chem. 1996 Aug 16;39(17):3409-11.
Distler MG, et al. Glyoxalase 1 increases anxiety by reducing GABAA receptor agonist methylglyoxal. J Clin Invest. 2012 Jun;122(6):2306-15.
McMurray KM, et al. Glo1 inhibitors for neuropsychiatric and anti-epileptic drug development. Biochem Soc Trans. 2014 Apr;42(2):461-7.
Distler MG, et al. Glyoxalase 1 and its substrate methylglyoxal are novel regulators of seizure susceptibility. Epilepsia. 2013 Apr;54(4):649-57.