Data Sheet (Cat.No.T37417)

TargetMol

Z-LLE-AMC

Chemical Properties

CAS No. : 348086-66-8

Formula: C35H44N4O9

Molecular Weight: 664.76

Storage: Keep away from moisture,
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	Z-LLE-AMC (Z-Leu-Leu-Glu-AMC) is a fluorogenic substrate used to detect caspase-like post-glutamate peptide hydrolase activity in the 26S proteasome or 20S proteolytic core. Caspase-like activity can be quantified by fluorescent detection of free AMC (7-amino-4-methylcoumarin), which has an excitation wavelength of 340–360 nm and an emission wavelength of 440–460 nm. Z-LLE-AMC is typically used in cell lysates after experimental treatment. Additionally, Z-LLE-AMC can also be used in Parkinson's disease research.
Targets(IC50)	Protease
In vitro	Method: In vitro, purified recombinant 20S proteasome was incubated with Z-LLE-AMC (75 μM) as a substrate to measure the post-acidic (postacidic)-like hydrolytic activity of the proteasome. Result: Under control conditions, the post-acidic-like activity of the purified 20S proteasome was 5.0±0.96 FU/min per mg. In the presence of 4 mM L-DOPA, the activity was 4.8±0.4 FU/min per mg, showing no significant difference from the control. In the presence of 10 μM lactacystin, the activity decreased to 0.75±0.075 FU/min per mg, representing an inhibition of approximately 85% (P<0.01) [1].

Solubility Information

Solubility	DMSO: 80 mg/mL (120.34 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.5043 mL	7.5215 mL	15.043 mL
5 mM	0.3009 mL	1.5043 mL	3.0086 mL
10 mM	0.1504 mL	0.7522 mL	1.5043 mL
50 mM	0.0301 mL	0.1504 mL	0.3009 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

McNaught KS, et al. Proteasomal function is impaired in substantia nigra in Parkinson's disease. Neurosci Lett. 2001;297(3):191-194.