

EACC

Chemical Properties

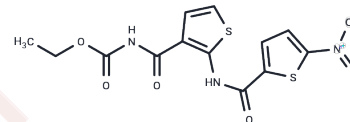
CAS No. : 864941-31-1

Formula: C₁₃H₁₁N₃O₆S₂

Molecular Weight: 369.37

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	EACC, a reversible autophagy inhibitor, selectively impedes Stx17, an autophagosome-specific SNARE, from translocating, hence obstructing the fusion between autophagosomes and lysosomes. This compound effectively halts autophagic flux.
Targets(IC50)	Autophagy
In vitro	EACC inhibits autophagy by blocking the loading of SNARE Stx17 onto autophagosomes, without affecting RABs, tethers, and lysosomal SNARE. It specifically impedes their interaction with LC3 and Stx17, thus halting autophagosome-lysosome fusion. Importantly, endo-lysosomal function remains unaffected by EACC.

Solubility Information

Solubility	DMSO: 10 mg/mL (27.07 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: 1 mg/mL (2.71 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

	1mg	5mg	10mg
1 mM	2.7073 mL	13.5366 mL	27.0731 mL
5 mM	0.5415 mL	2.7073 mL	5.4146 mL
10 mM	0.2707 mL	1.3537 mL	2.7073 mL
50 mM	0.0541 mL	0.2707 mL	0.5415 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

Vats S, et al. A reversible autophagy inhibitor blocks autophagosome-lysosome fusion by preventing Stx17 loading onto autophagosomes. *Mol Biol Cell*. 2019 Aug 1;30(17):2283-2295.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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