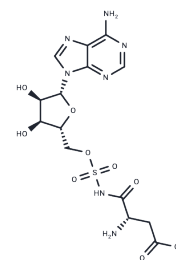


Asp-AMS

Chemical Properties

CAS No. :	828288-98-8
Formula:	C ₁₄ H ₁₉ N ₇ O ₉ S
Molecular Weight:	461.41
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	Asp-AMS is a strong competitive inhibitor of the mitochondrial enzyme and also an aspartyl-tRNA synthetase inhibitor.
Targets(IC50)	Others, Mitochondrial Metabolism
In vitro	Asp-AMS is a 500-fold stronger competitive inhibitor of the mitochondrial enzyme than aspartol-AMP (10 nM) and a 35-fold weaker competitor of human and bovine cyt-AspRSs (300 nM). It exhibits the highest inhibitory effect on the mitochondrial enzyme and is the most active inhibitor with Ki values in the nanomolar range, having a stronger effect on bacterial AspRSs (E. coli and P. aeruginosa) than on human cytosolic AspRS.

Solubility Information

Solubility	DMSO: 100 mg/mL (216.73 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 (7.15 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	2.1673 mL	10.8363 mL	21.6727 mL
5 mM	0.4335 mL	2.1673 mL	4.3345 mL
10 mM	0.2167 mL	1.0836 mL	2.1673 mL
50 mM	0.0433 mL	0.2167 mL	0.4335 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

Messmer M, et al. Peculiar inhibition of human mitochondrial aspartyl-tRNA synthetase by adenylate analogs. *Biochimie*. 2009 May;91(5):596-603.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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