Product Data Sheet

Product Name: Asp-AMS
Cat. No.: GC31432

Chemical Properties

Cas. No.	828288-98-8		
SMILES	O[C@@H]([C@H]([C@H](N1C=NC2=C1N=CN=C2N)O3)O)[C@H]3COS(=O)(NC([C@@H](N)CC(O)=O)=O)=O		
Formula	$C_{14}H_{19}N_7O_9S$	M.Wt	461.41
Solubility	DMSO : ≥ 100 mg/mL (216.73 mM)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Asp-AMS		

Background

Asp-AMS, an analogue of aspartyl-adenylate, is an aspartyl-tRNA synthetase inhibitor and also a strong competitive inhibitor of the mitochondrial enzyme.

Asp-AMS is a 500-fold stronger competitive inhibitor of the mitochondrial enzyme than aspartol-AMP (10 nM) and a 35-fold lower competitor of human and bovine cyt-AspRSs (300 nM). Asp-AMS is a strong inhibitor with Ki in the nanomolar (nM) range. Asp-AMS has also the highest inhibitory effect for the mitochondrial enzyme. Asp-AMS is the most active inhibitor with Ki values in the nanomolar range, with a stronger effect on bacterial AspRSs (E. coli and P. aeruginosa) than on human cytosolic AspRS[1].

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA