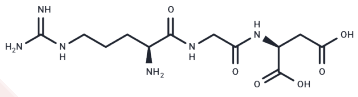
Data Sheet (Cat.No.T6966)

TargetMol

Arginine-glycine-aspartic acid

Chemical Properties



CAS No. : 99896-85-2

Formula: C12H22N6O6

Molecular Weight: 346.34

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	Arginine-glycine-aspartic acid
Targets(IC50)	Integrin
In vitro	The RGD sequence is the cell attachment site of a large number of adhesive extracellular matrix, blood, and cell surface proteins, and nearly half of the over 20 known integrins recognize this sequence in their adhesion protein ligands. The RGD peptides and mimics can be used to probe integrin functions in various biological systems. Drug design based on the RGD structure may provide new treatments for diseases such as thrombosis, osteoporosis, and cancer. [1] RGD peptide acts as an inhibitor of integrin-ligand interactions and can induce apoptosis in the absence of signals and integrin-mediated cell clustering. Research demonstrates that RGD peptides promote apoptosis through activation of conformation changes that enhance pro-caspase-3 activation and autoprocessing. [2] The RGD peptide can serve as a cell adhesion site of extracellular matrix, cell surface proteins, and integrins. [3] In addition, RGD peptide can inhibit ACK-2 activation through cell adhesion. [4]

Solubility Information

Solubility	H2O: 12.27 mg/mL (35.43 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8873 mL	14.4367 mL	28.8734 mL
5 mM	0.5775 mL	2.8873 mL	5.7747 mL
10 mM	0.2887 mL	1.4437 mL	2.8873 mL
50 mM	0.0577 mL	0.2887 mL	0.5775 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

Ruoslahti E, et al. Annu Rev Cell Dev Biol, 1996, 12, 697-715.
Buckley CD, et al. Nature, 1999, 397(6719), 534-539.
Meredith JE Jr, et al. Trends Cell Biol, 1997, 7(4), 146-150.
Yang W, et al. J Biol Chem, 1999, 274(13), 8524-8530.