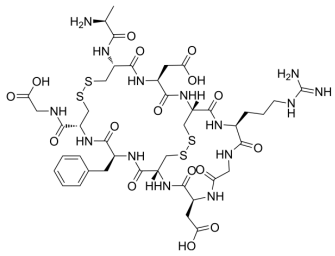
RGD-4C

Cat. No.:	HY-P3732
CAS No.:	332179-76-7
Molecular Formula:	$C_{42}H_{60}N_{14}O_{16}S_4$
Molecular Weight:	1145.27
Sequence Shortening:	ACDCRGDCFCG(Disulfide bridge: Cys2-Cys10; Cys4-Cys8)
Target:	Integrin
Pathway:	Cytoskeleton
Storage:	Sealed storage, away from moisture and light Powder -80°C 2 years -20°C 1 year * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (21.83 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	0.8732 mL	4.3658 mL	8.7316 mL
	5 mM	0.1746 mL	0.8732 mL	1.7463 mL
	10 mM	0.0873 mL	0.4366 mL	0.8732 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

RGD-4C is a arginine-glycine-aspartic acid peptide (ACDCRGDCFC) with integrin binding activity. The Arg-Gly-Asp (RGD) sequence serves as the primary integrin recognition site in extracellular matrix proteins, and peptides containing this sequence can mimic the recognition specificity of the matrix proteins. RGD-4C is a αv-integrin ligand, can conjugate with bioactive molecule to exert antitumor effects in animal models[1][2][3].

In Vitro

RGD-4C (2.5, 5, 10 μg/mL) inhibits BAE cell proliferation by synthetic form modified with endostatin-derived peptides[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

RGD-4C (9.11 mg/kg; injection; single dose) inhibits the growth of B16F10 mouse melanoma in vivo[2].

Modified RGD-4C fused with the N-terminus of plant-derived single-chain ribosome inactivating protein saporin (SAP) (called RGD-SAP), (diluted in sodium chloride, 0.9%; i.v.; 200 μL; every 5 days, for 3 times) exerts anti-tumor activity in a model of muscle invasive bladder cancer[3].

RGD-SAP in combination with mitomycin C, a chemotherapeutic drug, increases the survival of mice bearing orthotopic

bladder cancer with no evidence of systemic toxicity[3].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Assa-Munt N, et al. Solution structures and integrin binding activities of an RGD peptide with two isomers. Biochemistry. 2001 Feb 27;40(8):2373-8.

[2]. Yin R, et al. Effect of RGD-4C position is more important than disulfide bonds on antiangiogenic activity of RGD-4C modified endostatin derived synthetic polypeptide. Bioconjug Chem. 2010 Jul 21;21(7):1142-7.

[3]. Zuppone S, et al. A Novel RGD-4C-Saporin Conjugate Inhibits Tumor Growth in Mouse Models of Bladder Cancer. Front Oncol. 2022 Apr 11;12:846958.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA