

PRODUCT INFORMATION



RGD Peptide (trifluoroacetate salt)

Item No. 14501

Formal Name: glycyl-L-arginylglycyl-L- α -aspartyl-L-asparaginyl-L-proline, trifluoroacetate salt

Synonyms: GRGDNP, H-Gly-Arg-Gly-Asp-Asn-Pro-OH

MF: C₂₃H₃₈N₁₀O₁₀ • XCF₃COOH

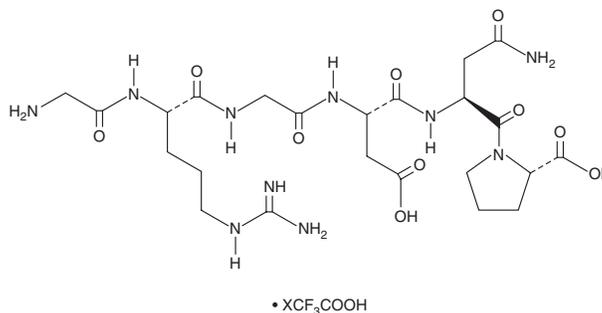
FW: 614.6

Purity: ≥95%

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

RGD peptide (trifluoroacetate salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the RGD peptide (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. RGD peptide (trifluoroacetate salt) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of RGD peptide (trifluoroacetate salt) in these solvents is approximately 5 and 14 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of RGD peptide (trifluoroacetate salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of RGD peptide (trifluoroacetate salt) in PBS (pH 7.2) is approximately 0.33 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

RGD peptide is a synthetic compound made up of the arginine-glycine-aspartate motif that has been extensively used to inhibit integrin-ligand interactions in studies related to cell adhesion, migration, growth, and differentiation.¹ RGD peptide has also been shown to directly induce apoptosis, independent of integrin-mediated cell clustering or signals, by initiating conformational changes that enhance pro-caspase-3 activation and autoprocessing.^{2,3}

References

1. Ruoslahti, E. and Öbrink, B. Common principles in cell adhesion. *Exp. Cell Res.* **227**(1), 1-11 (1996).
2. Buckley, C.D., Pilling, D., Henriquez, N.V., et al. RGD peptides induce apoptosis by direct caspase-3 activation. *Nature* **397**(6719), 534-539 (1999).
3. Adderley, S.R. and Fitzgerald, D.J. Glycoprotein IIb/IIIa antagonists induce apoptosis in rat cardiomyocytes by caspase-3 activation. *J. Biol. Chem.* **275**(8), 5760-5766 (2000).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/29/2023

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM