

PRODUCT INFORMATION



H-Arg-Gly-Asp-Cys-OH (trifluoroacetate salt)

Item No. 34543

Formal Name: (6S,12S,15R)-1,6-diamino-12-(carboxymethyl)-1-imino-15-(mercaptomethyl)-7,10,13-trioxo-2,8,11,14-tetraazahexadecan-16-oic acid, trifluoroacetate salt

Synonym: H-RGDC-OH

MF: C₁₅H₂₇N₇O₇S • XCF₃COOH

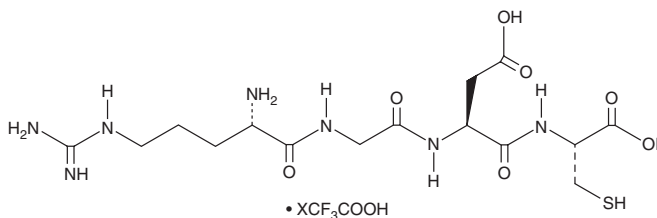
FW: 449.5

Purity: ≥95%

Supplied as: A solid

Storage: -20°C

Stability: ≥2 years



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

Laboratory Procedures

H-Arg-Gly-Asp-Cys-OH (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the H-Arg-Gly-Asp-Cys-OH (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. H-Arg-Gly-Asp-Cys-OH (trifluoroacetate salt) is soluble in the organic solvent ethanol at a concentration of approximately 10 mg/ml.

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 H-Arg-Gly-Asp-Cys-OH (trifluoroacetate salt) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of H-Arg-Gly-Asp-Cys-OH (trifluoroacetate salt) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

H-Arg-Gly-Asp-Cys-OH is a tetrapeptide that contains the arginine-glycine-aspartate (RGD) motif, a sequence that acts as a recognition site for various adhesion proteins.¹ It inhibits the binding of fibrinogen to endothelial cells and ADP-stimulated platelets with IC₅₀ values of 320 and 35 μM, respectively.² Implantation of titanium rods coated with H-Arg-Gly-Asp-Cys-OH increases bone formation in rat femurs.³ H-Arg-Gly-Asp-Cys-OH has been conjugated to polyethylenimine to improve gene transfection efficiency.⁴

References

1. Park, H.S., Kim, C., and Kang, Y.K. Preferred conformations of RGDX tetrapeptides to inhibit the binding of fibrinogen to platelets. *Biopolymers* **63**(5), 298-313 (2002).
2. Tranqui, L., Andrieux, A., Hudry-Clergeon, G., et al. Differential structural requirements for fibrinogen binding to platelets and to endothelial cells. *J. Cell Biol.* **108**(6), 2519-2527 (1989).
3. Ferris, D.M., Moodie, G.D., Dimond, P.M., et al. RGD-coated titanium implants stimulate increased bone formation in vivo. *Biomaterials* **20**(23-24), 2323-2331 (1999).
4. Kunath, K., Merdan, T., Hegener, O., et al. Integrin targeting using RGD-PEI conjugates for *in vitro* gene transfer. *J. Gene Med.* **5**(7), 588-599 (2003).

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.

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