
Product Data Sheet

Product Name: Gly-Arg-Gly-Asp-Ser

Cat. No.: GC30223

Chemical Properties

Cas. No. 96426-21-0

SMILES Gly-Arg-Gly-Asp-Ser

Formula C₁₇H₃₀N₈O₉

M.Wt 490.47

Solubility DMSO : 100 mg/mL (203.89 mM); Water : 33.33 mg/mL (67.96 mM)

Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C 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 **Background**

Gly-Arg-Gly-Asp-Ser is a pentapeptide that forms the cell-binding domain of a glycoprotein, osteopontin.

Gly-Arg-Gly-Asp-Ser binds to integrin receptors $\alpha v \beta 3$, with IC₅₀ of 5 μ M[1]. GRGDS-immobilized TiO₂ nanotubes enhance osteoblast-like cell (MG-63) adhesion, and significantly increased cell spreading and proliferation[2].

[1]. Bernhagen D, et al. High-Affinity RGD-Knottin Peptide as a New Tool for Rapid Evaluation of the Binding Strength of Unlabeled RGD-Peptides to $\alpha v \beta 3$, $\alpha v \beta 5$, and $\alpha 5 \beta 1$ Integrin Receptors. *Anal Chem.* 2017 Jun 6;89(11):5991-5997. [2]. Kim GH, et al. Evaluation of Osteoblast-Like Cell Viability and Differentiation on the Gly-Arg-Gly-Asp-Ser Peptide Immobilized Titanium Dioxide Nanotube via Chemical Grafting. *J Nanosci Nanotechnol.* 2016 Feb;16(2):1396-9.

Caution: Product has not been fully validated for medical applications. For research use only.

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