

Certificate of Analysis

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Product Name: RGDS peptide

Catalog No.: 3498

Batch No.: 12

CAS Number: 91037-65-9

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₁₅ H ₂₇ N ₇ O ₈
Batch Molecular Weight:	433.42
Physical Appearance:	White lyophilised solid
Net Peptide Content:	63%
Solubility:	Soluble to 1 mg/ml in water
Storage:	Store at -20°C
Peptide Sequence:	Arg-Gly-Asp-Ser

2. ANALYTICAL DATA

HPLC:	Shows 95.5% purity
Mass Spectrum:	Consistent with structure

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Batch No.: 12

CAS Number: 91037-65-9

Description:

RGDS peptide is an integrin binding sequence that inhibits integrin receptor function. Decreases systemic inflammation via inhibition of collagen-triggered activation of leukocytes and attenuates expression of inflammatory cytokines, iNOS and MMP-9. Promotes cell attachment and abrogates apoptosis via the mitochondrial pathway in osteoblasts in vitro.

Physical and Chemical Properties:

Batch Molecular Formula: C₁₅H₂₇N₇O₈

Batch Molecular Weight: 433.42

Physical Appearance: White lyophilised solid

Peptide Sequence:

Arg-Gly-Asp-Ser

Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 1 mg/ml in water

This product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

Net Peptide Content: 63% (Remaining weight made up of counterions and residual water).

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Peptides in solution are much less stable than in lyophilized form. This is especially true for peptides whose sequences contain amino acids such as Cys, Met, Trp, Asn, Gln, and N-terminal Glu.

Therefore we recommend storing peptides in solution for as short a time as possible. Avoid repeated freeze thaw cycles by dividing the peptide solution into aliquots and storing the aliquots at -20°C. Any portion of an aliquot unused after thawing should be discarded.

Peptides stored in solution can occasionally be susceptible to bacterial degradation. We recommend using sterile solutions or passing the peptide solution through a 0.2 µm filter to remove potential bacterial contamination whenever possible.

References:

Droppelmann et al (2009) Matrix metalloproteinase-2-deficient fibroblasts exhibit an alteration in the fibrotic response to CTGF/CCN2 due to an increase in the levels of endogenous fibronectin. *J.Biol.Chem.* **284** 13551. PMID: 19276073.

Moon et al (2009) Synthetic RGDS peptide attenuates lipopolysaccharide-induced pulmonary inflammation by inhibiting integrin signaled MAP kinase pathways. *Respir.Res.* **10** 18. PMID: 19272161.

Grigoriou et al (2005) Apoptosis and survival of osteoblast-like cells are regulated by surface attachment. *J.Biol.Chem.* **280** 1733. PMID: 15522882.

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