

Certificate of Analysis

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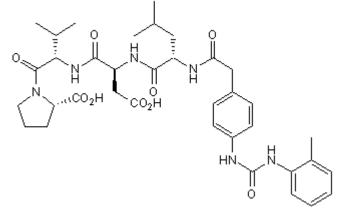
 Product Name:
 BIO 1211

 CAS Number:
 187735-94-0

Catalog No.: 3910 Batch No.: 3

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: Batch Molecular Weight: Physical Appearance: Net Peptide Content: Counter Ion: Solubility: Storage: Peptide Sequence: C₃₆H₄₈N₆O₉ 708.8 White lyophilised solid 87% TFA Soluble to 2 mg/ml in 0.2M PBS Store at -20°C



2. ANALYTICAL DATA

HPLC:

Mass Spectrum:

- Shows 97% purity Consistent with structure
- 3. AMINO ACID ANALYSIS DATA

Amino Acid	Theoretical	Actual	Amino Acid	Theoretical	Actual
Ala			Lys		
Arg			Met		
Asx	1.00	0.98	Phe		
Cys			Pro	1.00	0.98
Glx			Ser		
Gly			Thr		
His			Trp		
lle			Tyr		
Leu	1.00	1.02	Val	1.00	1.01

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





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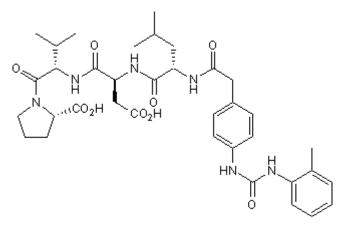
Description:

Selective, high affinity $\alpha_4\beta_1$ (Very Late Antigen 4; VLA-4) inhibitor; displays 200-fold selectivity for the activated form of $\alpha_4\beta_1$ (K_D = 70 pM; IC₅₀ = 0.004 µM). Selective for $\alpha_4\beta_1$ over a range of other integrins (IC₅₀ >100 µM for $\alpha_1\beta_1$, $\alpha_5\beta_1$ and $\alpha_6\beta_1$).

Physical and Chemical Properties:

Batch Molecular Formula: C₃₆H₄₈N₆O₉ Batch Molecular Weight: 708.8 Physical Appearance: White Iyophilised solid

Peptide Sequence:



Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 2 mg/ml in 0.2M PBS

Net Peptide Content: 87% (Remaining weight made up of counterions and residual water).

Counter Ion: TFA

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 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 μ m filter to remove potential bacterial contamination whenever possible.

References:

Chen *et al* (1999) Multiple activation sites of integrin $\alpha_4\beta_1$ detected through their different affinities for a small molecule ligand. J.Biol.Chem. **274** 13167. PMID: 10224072.

Lin *et al* (1999) Selective, tight-binding inhibitors of integrin $\alpha 4\beta 1$ that inhibit allergic airway responses. J.Med.Chem. **42** 920. PMID: 10072689.

Muro *et al* (2009) Discovery of *trans*-4-[1-[[2,5-Dichloro-4-(1-methyl-3-indolylcarboxamido)phenyl]acetyl]-(4*S*)-methoxy-(2*S*)-pyrrolidinylmethoxy]cyclohexanecarboxylic acid: an orally active, selective very late antigen-4 antagonist. J.Med.Chem. **52** 7974. PMID: 19891440.

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