

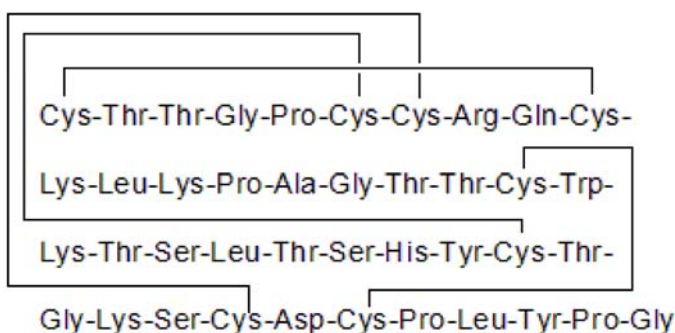
Product Name: Obtustatin

Catalog No.: 4664

Batch No.: 3

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₈₄H₂₈₄N₅₂O₅₇S₈
Batch Molecular Weight: 4393.07
Physical Appearance: White lyophilised solid
Net Peptide Content: 95%
Counter Ion: TFA
Solubility: Soluble to 1 mg/ml in water
Storage: Store at -20°C
Peptide Sequence:



2. ANALYTICAL DATA

HPLC: Shows 95.6% purity
Mass Spectrum: Consistent with structure

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

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Description:

Highly potent integrin $\alpha_1\beta_1$ inhibitor (IC_{50} = 0.8 nM for $\alpha_1\beta_1$ binding to type IV collagen). Selective for $\alpha_1\beta_1$ over $\alpha_2\beta_1$, $\alpha_{1b}\beta_3$, $\alpha_v\beta_3$, $\alpha_4\beta_1$, $\alpha_5\beta_6$, $\alpha_9\beta_1$ and $\alpha_4\beta_7$. Inhibits FGF2-stimulated angiogenesis in the chicken chorioallantoic model. Displays antitumor efficacy in a synergistic mouse model of Lewis lung carcinoma; blocks human melanoma growth in nude mice. Please see product datasheet on www.tocris.com for full description.

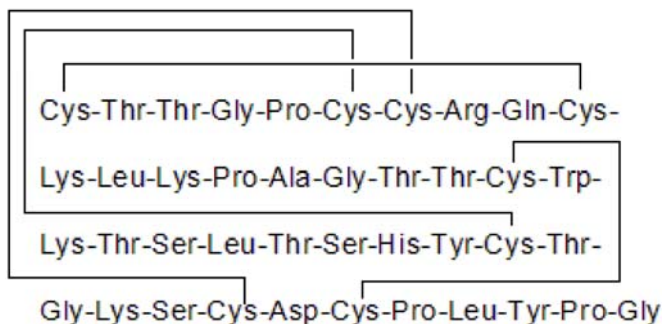
Physical and Chemical Properties:

Batch Molecular Formula: $C_{184}H_{284}N_{52}O_{57}S_8$

Batch Molecular Weight: 4393.07

Physical Appearance: White lyophilised solid

Peptide Sequence:



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: 95% (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 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 μ m filter to remove potential bacterial contamination whenever possible.

References:

Brown et al (2008) Angiostatic activity of obtustatin as $\alpha_1\beta_1$ integrin inhibitor in experimental melanoma growth. *Int.J.Cancer* **123** 2195. PMID: 18712720.

Marcinkiewicz et al (2003) Obtustatin: a potent and selective inhibitor of $\alpha_1\beta_1$ integrin in vitro and angiogenesis in vivo. *Cancer Res.* **63** 2020. PMID: 12727812.

Moreno-Murciano et al (2003) Amino acid sequence and homology modeling of obtustatin, a novel non-RGD-containing short disintegrin isolated from the venom of *Vipera lebetina obtusa*. *Protein Sci.* **12** 366. PMID: 12538900.

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