TOCRIS
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Print Date: Oct 28th 2019

Certificate of Analysis

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Product Name: **APC 366** **Catalog No.: 2511** **Batch No.: 4**

CAS Number: 158921-85-8

IUPAC Name: *N*-(1-Hydroxy-2-naphthoyl)-L-arginyl-L-prolinamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{22}H_{28}N_6O_4$

Batch Molecular Weight: 440.5

Physical Appearance: White lyophilised solid

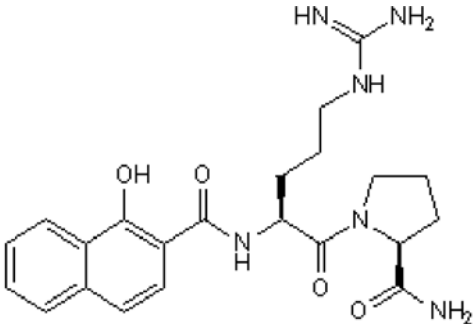
Net Peptide Content: 79%

Counter Ion: TFA

Solubility: Soluble to 5 mg/ml in 20% ethanol / water

Storage: Store at -20°C

Peptide Sequence:



2. ANALYTICAL DATA

HPLC: Shows 99.7% purity

Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

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

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Product Information

Product Name: **APC 366** **Catalog No.: 2511** **Batch No.: 4**

CAS Number: 158921-85-8

IUPAC Name: *N*-(1-Hydroxy-2-naphthoyl)-L-arginyl-L-prolinamide

Description:

Selective inhibitor of mast cell tryptase (K_i = 7.1 µM) that inhibits tryptase-induced histamine release from human tonsil and lung cells. Reduces airway inflammation and blocks postchallenge airway hyperresponsiveness in vivo.

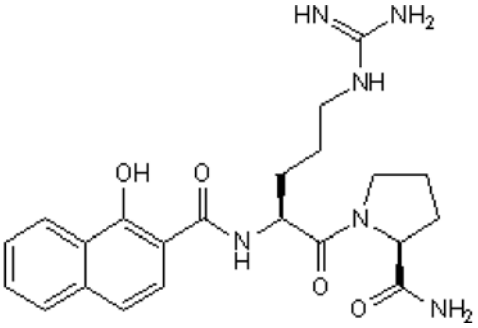
Physical and Chemical Properties:

Batch Molecular Formula: $C_{22}H_{28}N_6O_4$

Batch Molecular Weight: 440.5

Physical Appearance: White lyophilised solid

Peptide Sequence:



Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 5 mg/ml in 20% ethanol / water

Net Peptide Content: 79% (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 µm filter to remove potential bacterial contamination whenever possible.

References:

He *et al* (2004) Inhibitors of tryptase as mast cell-stabilizing agents in the human airways: effects of tryptase and other agonists of proteinase-activated receptor 2 on histamine release. J.Pharmacol.Exp.Ther. ***309*** 119. PMID: 14722328.

Barrios *et al* (1998) Tryptase mediates hyperresponsiveness in isolated guinea pig bronchi. Life Sci. ***63*** 2295. PMID: 9877219.

He *et al* (1998) A role for tryptase in the activation of human mast cells: modulation of histamine release by tryptase and inhibitors of tryptase. J.Pharmacol.Exp.Ther. ***286*** 289. PMID: 9655871.

Numerof *et al* (1997) Tryptase inhibitors: a novel class of anti-inflammatory drugs. Exp.Opin.Invest.Drugs. ***6*** 811.