

Product Name: ATN 161
CAS Number: 262438-43-7

Catalog No.: 6058 **Batch No.:** 4

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₃H₃₅N₉O₈S
Batch Molecular Weight: 597.65
Physical Appearance: White lyophilised solid
Net Peptide Content: 76%
Counter Ion: TFA
Solubility: Soluble to 2 mg/ml in water
Storage: Store at -20°C
Peptide Sequence: Ac-Pro-His-Ser-Cys-Asn-NH₂

2. ANALYTICAL DATA

HPLC: Shows 97.3% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical			Amino Acid Actual		
Ala			Lys		
Arg			Met		
Asx	1.00	0.99	Phe		
Cys	1.00	Detected	Pro	1.00	1.01
Glx			Ser	1.00	0.53
Gly			Thr		
His	1.00	1.00	Trp		
Ile			Tyr		
Leu			Val		

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Description:

$\alpha 5\beta 1$ integrin receptor antagonist. Reduces liver metastasis and improves survival in combination with 5-FU (Cat. No. 3257) in a mouse model of colon cancer. Reduces MLL tumor growth in rats and decreases tumor volume of human MDA-MB-231 cell xenografts in mice.

Physical and Chemical Properties:Batch Molecular Formula: $C_{23}H_{35}N_9O_8S$

Batch Molecular Weight: 597.65

Physical Appearance: White lyophilised solid

Peptide Sequence:Ac-Pro-His-Ser-Cys-Asn-NH₂**Storage:** Store at -20°C**Solubility & Usage Info:**

Soluble to 2 mg/ml in water

Net Peptide Content: 76% (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:

Khalili *et al* (2006) A non-RGD-based integrin binding peptide (ATN-161) blocks breast cancer growth and metastasis *in vivo*. *Mol.Cancer Ther.* **5** 2271. PMID: 16985061 .

Stoeltzing *et al* (2003) Inhibition of integrin $\alpha 5\beta 1$ function with a small peptide (ATN-161) plus continuous 5-FU infusion reduces colorectal liver metastases and improves survival in mice. *Int.J.Cancer.* **104** 496. PMID: 12584749.

Livant *et al* (2000) Anti-invasive, antitumorogenic, and antimetastatic activities of the PHSCN sequence in prostate carcinoma. *Cancer Res.* **60** 309. PMID: 10667582.

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bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel:+1 612 379 2956