

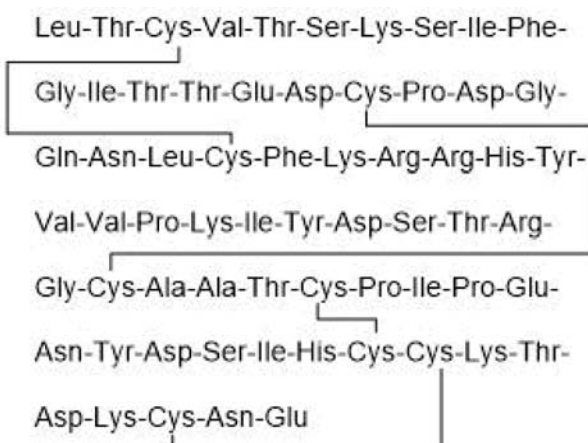
Product Name: AdTx1

Catalog No.: 5940

Batch No.: 2

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₃₁₀H₄₈₁N₈₇O₁₀₀S₈
Batch Molecular Weight: 7283.19
Physical Appearance: White lyophilised solid
Net Peptide Content: 90%
Counter Ion: TFA
Solubility: Soluble to 1 mg/ml in water
Storage: Store at -20°C
Peptide Sequence:



2. ANALYTICAL DATA

HPLC: Shows 98.3% purity

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

Product Name: AdTx1

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Description:

Selective, high affinity, non-competitive α_{1A} adrenoceptor antagonist ($K_i = 0.35$ nM). Exhibits no significant activity against a range of other GPCRs, including α_{2A} , β_1 and β_2 adrenoceptors. Antagonizes effects of phenylephrine (Cat. No. 2838) on isolated rabbit prostate muscle in vitro and on intra-urethral pressure in rats.

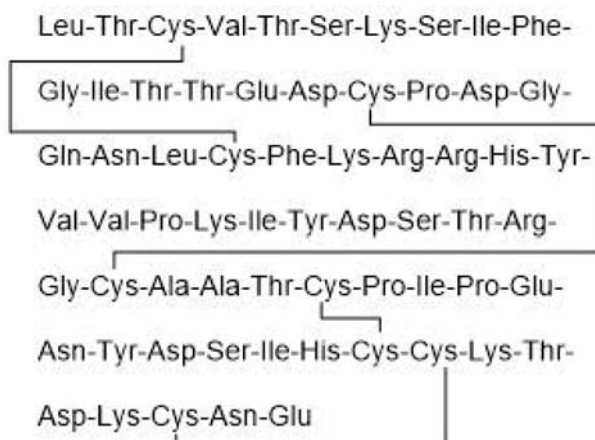
Physical and Chemical Properties:

Batch Molecular Formula: $C_{310}H_{481}N_{87}O_{100}S_8$

Batch Molecular Weight: 7283.19

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: 90% (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:

Palea et al (2013) Effects of ρ -Da1a a peptidic α_{1A} -adrenoceptor antagonist in human isolated prostatic adenoma and anaesthetized rats. *Br.J.Pharmacol.* **168** 618. PMID: 23005263.

Quinton et al (2010) Isolation and pharmacological characterization of AdTx1, a natural peptide displaying specific insurmountable antagonism of the α_{1A} -adrenoceptor. *Br.J.Pharmacol.* **159** 316. PMID: 20015090.

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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