bio-techne
TOCRIS

Print Date: Mar 31st 2025

Certificate of Analysis

www.tocris.com

Product Name: **Atosiban** **Catalog No.: 6332** **Batch No.: 3**

CAS Number: 90779-69-4

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{43}H_{67}N_{11}O_{12}S_2$

Batch Molecular Weight: 994.19

Physical Appearance: White to off-white solid

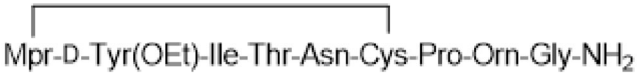
Net Peptide Content: 91%

Counter Ion: Acetate

Solubility: Soluble to 50 mg/ml in water

Storage: Store at -20°C

Peptide Sequence:



2. ANALYTICAL DATA

HPLC: Shows 98.0% purity

Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid	Theoretical	Actual	Amino Acid	Theoretical	Actual
Ala			Lys		
Arg			Met		
Asx	1.00	1.00	Phe		
Cys	1.00	0.40	Pro	1.00	1.00
Glx			Ser		
Gly	1.00	1.10	Thr	1.00	0.90
His			Trp		
Ile	1.00	0.90	Tyr	1.00	0.70
Leu			Val		

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

Product Name: **Atosiban** **Catalog No.: 6332** **Batch No.: 3**

CAS Number: 90779-69-4

Description:

Atosiban is a potent oxytocin receptor (OTR) antagonist. Inhibits oxytocin-induced increase in Ca^{2+} concentration in myometrial cells in vitro (IC_{50} = 5 nM) Activates NF-κB and MAPK pathways in human amnion via $G_{\alpha i}$ signaling, resulting in pro-inflammatory effects. Inhibits oxytocin-induced uterine contractions in vivo and in vitro. Effective in a rat preterm labor model.

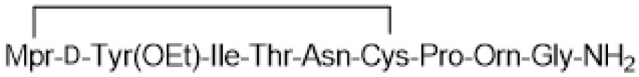
Physical and Chemical Properties:

Batch Molecular Formula: $C_{43}H_{67}N_{11}O_{12}S_2$

Batch Molecular Weight: 994.19

Physical Appearance: White to off-white solid

Peptide Sequence:



Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

Soluble to 50 mg/ml in water

Net Peptide Content: 91% (Remaining weight made up of counterions and residual water).

Counter Ion: Acetate

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:

Kim *et al* (2017) Differential effects of oxyt. receptor antagonists, Atosiban and Nolasiban, on oxyt. receptor-mediated signaling in human amnion and myometrium. Mol.Pharmacol. ***91*** 403. PMID: 28188254.

Kim *et al* (2016) The oxyt. receptor antagonist, Atosiban, activates pro-inflammatory pathways in human amnion via $G_{\alpha i}$ signalling. Mol.Cell.Endocrinol. ***420*** 11. PMID: 26586210.

Maggi *et al* (1994) Antagonists for the human oxyt. receptor: an *in vitro* study. J.Reprod.Fertil. ***101*** 345. PMID: 7932368.

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