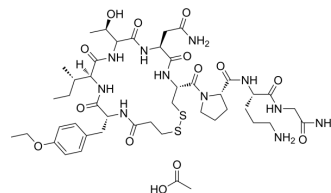


## Atosiban acetate

Cat. No.:	HY-17572A
CAS No.:	914453-95-5
Molecular Formula:	C <sub>45</sub> H <sub>71</sub> N <sub>11</sub> O <sub>14</sub> S <sub>2</sub>
Molecular Weight:	1054.24
Target:	Oxytocin Receptor; Vasopressin Receptor
Pathway:	GPCR/G Protein
Storage:	Sealed storage, away from moisture Powder    -80°C    2 years -20°C    1 year



\* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 100 mg/mL (94.86 mM; Need ultrasonic)  
H<sub>2</sub>O : 50 mg/mL (47.43 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	0.9486 mL	4.7428 mL	9.4855 mL
	5 mM	0.1897 mL	0.9486 mL	1.8971 mL
	10 mM	0.0949 mL	0.4743 mL	0.9486 mL

Please refer to the solubility information to select the appropriate solvent.

#### In Vivo

- Add each solvent one by one: PBS  
Solubility: 100 mg/mL (94.86 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.5 mg/mL (2.37 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (2.37 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (2.37 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Atosiban acetate (RW22164 acetate; RWJ22164 acetate) is a nonapeptide competitive vasopressin/oxytocin receptor antagonist, and is a desamino-oxytocin analogue. Atosiban is the main tocolytic agent and has the potential for spontaneous preterm labor research<sup>[1]</sup>.

<b>In Vitro</b>	<p>Atosiban inhibits the oxytocin-mediated release of IP3 from the myometrial cell membrane. There is reduced release of intracellular, stored calcium from the sarcoplasmic reticulum of myometrial cells, and reduced influx of Ca<sup>2+</sup> from the extracellular space through voltage gated channels. In addition, Atosiban suppresses oxytocin-mediated release of PGE and PGF from the decidua<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>
<b>In Vivo</b>	<p>The posterior pituitary hormones, oxytocin and arginine vasopressin, differ in structure by only two amino acids, and Atosiban influences physiological effects of arginine vasopressin on the feto-maternal cardiovascular and renal systems. In late-gestation sheep, the administration of Atosiban for 1 hour fails to induce fetomaternal cardiovascular changes<sup>[1]</sup>.</p> <p>?Atosiban blocks the activation of oxytocin-receptor-expressing neurons in the parabrachial nucleus of mice<sup>[2]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

## CUSTOMER VALIDATION

- Front Neurosci. 2021 Sep 10;15:723064.
- J Pharm Biomed Anal. 2022: 115156.
- J Pharm Biomed Anal. 11 December 2021, 114518.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

[1]. Sanu O, et al. Critical appraisal and clinical utility of atosiban in the management of preterm labor. Ther Clin Risk Manag. 2010 Apr 26;6:191-9.

[2]. Philip J Ryan, et al. Oxytocin-receptor-expressing Neurons in the Parabrachial Nucleus Regulate Fluid Intake. Nat Neurosci. 2017 Dec;20(12):1722-1733.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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