# N-Acetyloxytocin

| Cat. No.:            | HY-P3219   | НО         |  |  |  |
|----------------------|--|------------|--|--|--|
| CAS No.:             | 10551-48-1   | Q H M      |  |  |  |
| Molecular Formula:   | C <sub>45</sub> H <sub>68</sub> N <sub>12</sub> O <sub>13</sub> S <sub>2</sub>     |            |  |  |  |
| Molecular Weight:    | 1049.22  | HN O HN    |  |  |  |
| Sequence Shortening: | Ac-CYIQNCPLG-NH2 (Disulfide bridge:Cys1-Cys6)                                      | CO S-S NHO |  |  |  |
| Target:              | Endogenous Metabolite  | N H U      |  |  |  |
| Pathway:             | Metabolic Enzyme/Protease  |            |  |  |  |
| Storage:             | Sealed storage, away from moisture and light, under nitrogen                       | Ť          |  |  |  |
|                      | Powder -80°C 2 years   |            |  |  |  |
|                      | -20°C 1 year   |            |  |  |  |
|                      | * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture |            |  |  |  |
|                      | and light, under nitrogen)   |            |  |  |  |

## SOLVENT & SOLUBILITY

| In Vitro | DMSO : ≥ 50 mg/mL (47.65 mM)<br>* "≥" means soluble, but saturation unknown.   |  |           |           |           |  |  |
|----------|--|--|-----------|-----------|-----------|--|--|
|          | Preparing<br>Stock Solutions   | Solvent Mass<br>Concentration  | 1 mg      | 5 mg      | 10 mg     |  |  |
|          |  | 1 mM   | 0.9531 mL | 4.7654 mL | 9.5309 mL |  |  |
|          |  | 5 mM   | 0.1906 mL | 0.9531 mL | 1.9062 mL |  |  |
|          |  | 10 mM  | 0.0953 mL | 0.4765 mL | 0.9531 mL |  |  |
|          | Please refer to the solubility information to select the appropriate solvent.  |  |           |           |           |  |  |
| In Vivo  | 1. Add each solvent o<br>Solubility: ≥ 2.08 n  | dd each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline<br>olubility:≥2.08 mg/mL (1.98 mM); Clear solution |           |           |           |  |  |
|          | 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)<br>Solubility: ≥ 2.08 mg/mL (1.98 mM); Clear solution |  |           |           |           |  |  |
|          | 3. Add each solvent one by one: 10% DMSO >> 90% corn oil<br>Solubility: ≥ 2.08 mg/mL (1.98 mM); Clear solution                 |  |           |           |           |  |  |

| BIOLOGICAL ACTIVITY |   |  |  |  |
|---------------------|---|--|--|--|
|                     |   |  |  |  |
| Description         | N-Acetyloxytocin is isolated and characterized in the neurointermediate lobe of the rat pituitary (NIL) and their presence in several brain areas of the rat <sup>[1]</sup> . |  |  |  |
| In Vitro            | N-Acetyloxytocin is a post-translational modification of vasopressin (VP), and oxytocin (OT). The acetylated forms arc not  |  |  |  |

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NH<sub>2</sub> NH<sub>2</sub> NH<sub>2</sub> Ň Y

Product Data Sheet

restricted to the pineal gland, the tissue in which N-Acetyloxytocin is initially identified, but also occur in other systems producing OT and VP<sup>[1]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

#### REFERENCES

[1]. Liu B, et al. N-acetyl-vasopressin- and N-acetyl-oxytocin-like substances: isolation and characterization in the rat neurointermediate pituitary and presence in the brain. J Neuroendocrinol. 1989;1(1):47-52.

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

 Tel: 609-228-6898
 Fax: 609-228-5909
 E-mail: tech@MedChemExpress.com

 Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA