

Certificate of Analysis

Print Date: Jul 19th 2019

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Product Name: TC OT 39 Catalog No.: 4625 Batch No.: 1

CAS Number: 479232-57-0

IUPAC Name: (2S)-N-[[4-[(4,10-Dihydro-1-methylpyrazolo[3,4-b][1,5]benzodiazepin-5(1H)-yl)carbonyl]-2-methylphenyl]methyl]-2-

[(hexahydro-4-methyl-1*H*-1,4-diazepin-1-yl)thioxomethyl]-1-pyrrolidinecarboxamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₃₂H₄₀N₈O₂S.H₂O

Batch Molecular Weight: 618.8

Physical Appearance: Off White solid

Solubility: 1eq. HCl to 100 mM

DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:

2. ANALYTICAL DATA

TLC: R_f = 0.26 (Dichloromethane:Methanol [85:15])

HPLC: Shows 97.7% purity
Chiral HPLC: Shows 98.3% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Optical Rotation: $[\alpha]_D = -18.1$ (Concentration = 1, Solvent = Methanol)

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 62.11 6.84 18.11 Found 61.95 6.58 18.02

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



Product Information

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Description:

Potent non-peptide oxytocin receptor partial agonist (EC $_{50}$ values are 33 nM and 850 nM for the oxytocin receptor and V $_2$ vasopressin receptor respectively). Also a V $_{1a}$ vasopressin receptor antagonist (K $_i$ = 330 nM). Active in vivo in a rat model of uterine response.

Physical and Chemical Properties:

Batch Molecular Formula: C₃₂H₄₀N₈O₂S.H₂O

Batch Molecular Weight: 618.8 Physical Appearance: Off White solid

Minimum Purity: >97%

Batch Molecular Structure:

Storage: Store at -20°C

Solubility & Usage Info:

1eq. HCl to 100 mM DMSO to 100 mM

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).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Frantz *et al* (2010) Subtlety of the structure-affinity and structure-efficacy relationships around a nonpeptide oxyt. receptor agonist. J.Med.Chem. **53** 1546. PMID: 20104850.

Pitt et al (2004) Non-peptide oxyt. agonists. Bioorg.Med.Chem.Lett. 14 4585. PMID: 15357997.