bio-techne
TOCRIS

Print Date: Feb 29th 2024

Certificate of Analysis

www.tocris.com

Product Name: **YNT 185** **Catalog No.: 6739** **Batch No.: 2**

CAS Number: 1804978-82-2

IUPAC Name: 3'-[[[3-[[2-[[2-(Dimethylamino)benzoyl]amino]ethyl]amino]phenyl]amino]sulfonyl]-4'-methoxy-*N*,*N*-dimethyl-[1,1'-biphenyl]-3-carboxamide dihydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{33}H_{37}N_5O_5S.2HCl.¼H_2O$

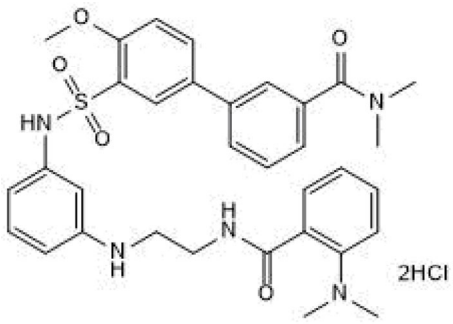
Batch Molecular Weight: 693.16

Physical Appearance: Off White solid

Solubility: water to 100 mM
DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.1% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen	Chlorine
Theoretical	57.18	5.74	10.1	10.23
Found	56.23	5.93	9.61	9.63

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Description:

YNT 185 is a potent and selective orexin OX_2 receptor agonist (EC_{50} = 28 nM at human OX_2 expressed in CHO cells). Displays approximately 100-fold selectivity for OX_2 over OX_1 (EC_{50} = 2.75 µM at human OX_1 expressed in CHO cells). Depolarizes OX_2-expressing histaminergic neurons in mouse brain slices. Increases wake time in wild type mice. Suppresses cataplexy-like symptoms in OX knockout mice.

Physical and Chemical Properties:

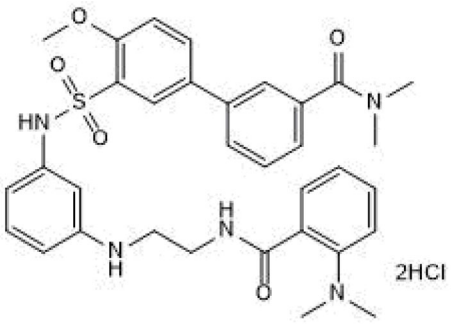
Batch Molecular Formula: $C_{33}H_{37}N_5O_5S.2HCl.¼H_2O$

Batch Molecular Weight: 693.16

Physical Appearance: Off White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

water 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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

Irukayama-Tomobe *et al* (2017) Nonpeptide orexin type-2 receptor agonist ameliorates narcolepsy-cataplexy symptoms in mouse models. Proc.Natl.Acad.Sci.USA. ***144*** 5731. PMID: 28507129.

Nagahara *et al* (2015) Design and synthesis of non-peptide, selective orexin receptor 2 agonists. J.Med.Chem. ***58*** 7931. PMID: 26267383.