

Product Name: NAS-181

Catalog No.: 1413

Batch No.: 5

CAS Number: 1217474-40-2

IUPAC Name: (2*R*)-2-[[[3-(4-Morpholinylmethyl)-2*H*-1-benzopyran-8-yl]oxy]methyl]morpholine dimethanesulfonate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₉H₂₆N₂O₄·2CH₃SO₃H·1½H₂O

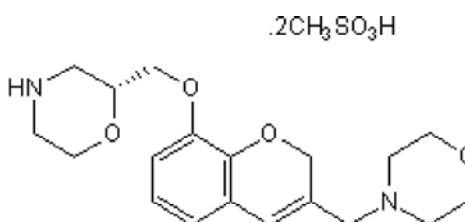
Batch Molecular Weight: 565.65

Physical Appearance: Beige solid

Solubility: water to 100 mM
DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 96.7% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Optical Rotation: [α]_D = -3.4 (Concentration = 1.1, Solvent = Methanol)

Microanalysis:

	Carbon Hydrogen Nitrogen		
Theoretical	44.59	6.59	4.95
Found	44.34	6.19	4.95

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

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: NAS-181

Catalog No.: 1413

Batch No.: 5

CAS Number: 1217474-40-2

IUPAC Name: (2*R*)-2-[[[3-(4-Morpholinylmethyl)-2*H*-1-benzopyran-8-yl]oxy]methyl]morpholine dimethanesulfonate

Description:

Potent, selective antagonist at the rat 5-HT_{1B} receptor (K_i = 47 nM). Increases synthesis and metabolism of 5-HT in the brain following systemic administration and improves passive avoidance retention performance in vivo. Increases subthalamic nucleus-triggered complex EPSCs and burst firing in SNr GABA neurons

Physical and Chemical Properties:

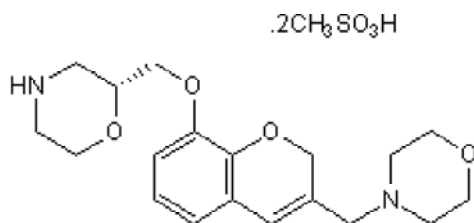
Batch Molecular Formula: C₁₉H₂₆N₂O₄·2CH₃SO₃H·1½H₂O

Batch Molecular Weight: 565.65

Physical Appearance: Beige solid

Minimum Purity: >97%

Batch Molecular Structure:



References:

Ding et al (2013) Presynaptic serotonergic gating of the subthalamonigral glutamatergic projection. *J.Neurosci.* **33** 4875. PMID: 23486958.

Eriksson et al (2008) Blockade of 5-HT_{1B} receptors facilitates contextual aversive learning in mice by disinhibition of cholinergic and glutamatergic neurotransmission. *Neuropharmacology* **54** 1041. PMID: 18394658.

Stenfors et al (2000) Enhanced 5-HT metabolism and synthesis rate by the new selective r5-HT_{1B} receptor antagonist, NAS-181 in the rat brain. *Neuropharmacology* **39** 553. PMID: 10728876.

Berg et al (1998) (*R*)-(+)-2-[[[3-Morpholinomethyl)-2*H*-chromen-8-yl]oxy]methyl]morpholine methanesulfonate: a new selective rat 5-hydroxytryptamine_{1B} receptor antagonist. *J.Med.Chem.* **41** 1934. PMID: 9599242.

Storage: Store at -20°C

Solubility & Usage Info:

water to 100 mM

DMSO to 100 mM

CAUTION - This product is hygroscopic and we recommend that it is desiccated upon arrival. Solutions should be made up as soon as the vial is opened.

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.

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

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