

Certificate of Analysis

Print Date: Jan 3rd 2020

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Product Name: EPPTB Catalog No.: 4518 Batch No.: 1

CAS Number: 1110781-88-8

IUPAC Name: N-(3-Ethoxyphenyl)-4-(1-pyrrolidinyl)-3-(trifluoromethyl)benzamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{20}H_{21}F_3N_2O_2$

Batch Molecular Weight: 378.39 **Physical Appearance:** White solid

Solubility: DMSO to 100 mM

ethanol to 100 mM

Storage: Store at +4°C

Batch Molecular Structure:

2. ANALYTICAL DATA

TLC: $R_f = 0.2$ (Ethyl acetate:Petroleum ether [4:1])

HPLC: Shows 99.9% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

Carbon Hydrogen Nitrogen

Theoretical 63.48 5.59 7.4 Found 63.37 5.53 7.44

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Product Information

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Description:

Trace amine 1 (TA₁) receptor antagonist/inverse agonist; exhibits a higher potency at the mouse TA₁ receptor than the rat and human TA₁ receptors (IC₅₀ values are 27.5, 4539 and 7487 nM, respectively). Blocks the TA₁ receptor-mediated activation of an inwardly rectifying K+ current, which increases the firing frequency of dopamine (DA) neurons in the ventral tegmental area. Increases DA potency at the D₂ receptor. Also displays inverse agonism, reducing basal cAMP levels in vitro (IC₅₀ = 19 nM).

Physical and Chemical Properties:

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Batch Molecular Weight: 378.39 Physical Appearance: White solid

Minimum Purity: ≥99%

Batch Molecular Structure:

Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM ethanol 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:

Bradaia et al (2009) The selective antagonist EPPTB reveals TAAR1-mediated regulatory mechanisms in DArgic neurons of the mesolimbic system. Proc.Natl.Acad.Sci.U.S.A. **106** 20081. PMID: 19892733.