

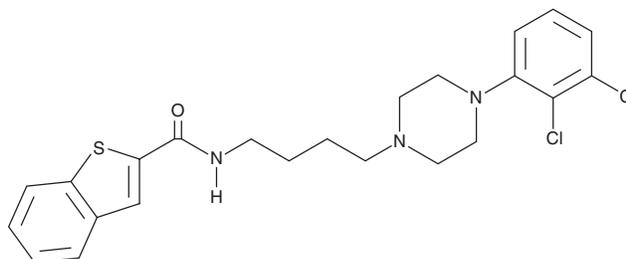
PRODUCT INFORMATION



FAUC-365

Item No. 20457

CAS Registry No.: 474432-66-1
Formal Name: N-[4-[4-(2,3-dichlorophenyl)-1-piperazinyl]-butyl]-benzo[b]thiophene-2-carboxamide
MF: C₂₃H₂₅Cl₂N₃OS
FW: 462.4
Purity: ≥98%
UV/Vis.: λ_{max}: 221, 244, 280 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

FAUC-365 is supplied as a crystalline solid. A stock solution may be made by dissolving the FAUC-365 in the solvent of choice. FAUC-365 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of FAUC-365 in ethanol is approximately 2 mg/ml and approximately 30 mg/ml in DMSO and DMF.

FAUC-365 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, FAUC-365 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. FAUC-365 has a solubility of approximately 0.25 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

FAUC-365 is a dopamine D₃ receptor antagonist (K_i = 0.5 nM).¹ It is selective for dopamine D₃ receptors over dopamine D₁, D_{2L}, D_{2S}, and D₄ receptors (K_is = 8.8, 3.6, 2.6, and 0.34 μM, respectively) as well as the serotonin (5-HT) receptor subtypes 5-HT_{1A} and 5-HT₂ (K_is = 0.36 and 2 μM, respectively). FAUC-365 (1-10 mg/kg) prevents memory impairment in the novel object recognition test in dopamine transporter knockdown (DAT-KD) mice when administered prior to object learning.²

References

1. Bettinetti, L., Schlotter, K., Hübner, H., *et al.* Interactive SAR studies: Rational discovery of super-potent and highly selective dopamine D₃ receptor antagonists and partial agonists. *J. Med. Chem.* **45**(21), 4594-4597 (2002).
2. Chang, P.-K., Yu, L., and Chen, J.-C. Dopamine D₃ receptor blockade rescues hyper-dopamine activity-induced deficit in novel object recognition memory. *Neuropharmacology* **133**, 216-223 (2018).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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