

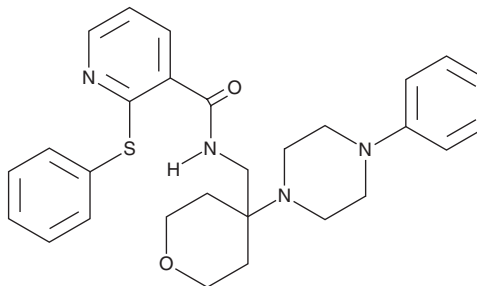
PRODUCT INFORMATION

JNJ-47965567

Item No. 21895



CAS Registry No.: 1428327-31-4
Formal Name: 2-(phenylthio)-N-[[tetrahydro-4-(4-phenyl-1-piperazinyl)-2H-pyran-4-yl]methyl]-3-pyridinecarboxamide
MF: C₂₈H₃₂N₄O₂S
FW: 488.6
Purity: ≥98%
UV/Vis.: λ_{max}: 251 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

JNJ-47965567 is supplied as a crystalline solid. A stock solution may be made by dissolving the JNJ-47965567 in the solvent of choice. JNJ-47965567 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of JNJ-47965567 in ethanol is approximately 12.5 mg/ml and approximately 30 mg/ml in DMSO and DMF.

JNJ-47965567 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, JNJ-47965567 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. JNJ-47965567 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

JNJ-47965567 is a selective antagonist of the purinergic receptor P2X subtype 7 (P2X₇), a ligand-gated ion channel. Activation of P2X receptors by BzATP (Item No. 15577) induces calcium flux, which is reduced by JNJ-47965567 in 1321N1 cells transfected with recombinant P2X₇ human, macaque, dog, rat, or mouse protein with pIC₅₀s of 8.3, 8.6, 8.5, 7.2, or 7.5, respectively.¹ JNJ-47965567 suppresses neonatal hypoxia-induced seizures in mice and has some anticonvulsant properties in rats.^{2,3} It also reduces spontaneous seizures in epileptic mice even after treatment is stopped.⁴

References

1. Bhattacharya, A., Wang, Q., Ao, H., *et al.* Pharmacological characterization of a novel centrally permeable P2X₇ receptor antagonist: JNJ-47965567. *Br. J. Pharmacol.* **170**(3), 624-640 (2013).
2. Rodriguez-Alvarez, N., Jimenez-Mateos, E.M., Engel, T., *et al.* Effects of P2X₇ receptor antagonists on hypoxia-induced neonatal seizures in mice. *Neuropharmacology* **116**(2017), 351-363 (2017).
3. Fischer, W.H., Franke, H., Krügel, U., *et al.* Critical evaluation of P2X₇ receptor antagonists in selected seizure models. *PLoS One* **11**(6), e0156468 (2016).
4. Jimenez-Pacheco, A., Diaz-Hernandez, M., Arribas-Blázquez, M., *et al.* Transient P2X₇ receptor antagonism produces lasting reductions in spontaneous seizures and gliosis in experimental temporal lobe epilepsy. *J. Neurosci.* **36**(22), 5920-5932 (2016).

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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