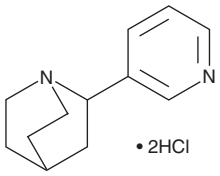
PRODUCT INFORMATION

RJR 2429 (hydrochloride)

Item No. 29745

CAS Registry No.: 1021418-53-0
Formal Name: 2-(3-pyridinyl)-1-azabicyclo[2.2.2]octane, dihydrochloride
MF: $C_{12}H_{16}N_2 \bullet 2HCl$
FW: 261.2
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

RJR 2429 (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the RJR 2429 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. RJR 2429 (hydrochloride) is soluble in the organic solvent DMSO. It is also soluble in water. The solubility of RJR 2429 (hydrochloride) in DMSO and water is approximately 100 mM. We do not recommend storing the aqueous solution for more than one day.

Description

RJR 2429 is a nicotinic acetylcholine receptor (AChR) agonist.[1] It is selective for α4β2 or α7 subunit-containing nicotinic AChRs (K_is = 0.7 and 10.9 nM in isolated rat cortex and isolated rat hippocampus, respectively) over α1βγδ subunit-containing nicotinic AChRs (EC_{50} = 1,000 nM in PC12 cells). RJR 2429 induces dopamine release from isolated rat striatal synaptosomes (EC_{50} = 2.4 nM) and increases nicotine-induced elevations in epinephrine and norepinephrine levels in isolated rat adrenal gland when used at a concentration of 100 µM.[2,3] It inhibits nicotine-induced ion flux in isolated rat thalamic synaptosomes (IC_{50} = 154 nM).[2]

References

1. Bhatti, B., Strachan, J.-P., Breining, S.R., *et al.* Synthesis of 2-(pyridin-3-yl)-1-azabicyclo[3.2.2]nonane, 2-(pyridin-3-yl)-1-azabicyclo[2.2.2]octane, and 2-(pyridin-3-yl)-1-azabicyclo[3.2.1]octane, a class of potent nicotinic acetylcholine receptor-ligands. *J. Org. Chem.* **73(9)**, 3497-3507 (2008).
2. Bencherif, M., Schmitt, J.D., Bhatti, B.S., *et al.* The heterocyclic substituted pyridine derivative (+/-)-2-(-3-pyridinyl)-1-azabicyclo[2.2.2]octane (RJR-2429): A selective ligand at nicotinic acetylcholine receptors. *J. Pharmacol. Exp. Ther.* **284(3)**, 886-894 (1998).
3. Playa, H., Lewis, T.A., Ting, A., *et al.* Dilazep analogues for the study of equilibrative nucleoside transporters 1 and 2 (ENT1 and ENT2). *Bioorg. Med. Chem. Lett.* **24(24)**, 5801-5804 (2014).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM