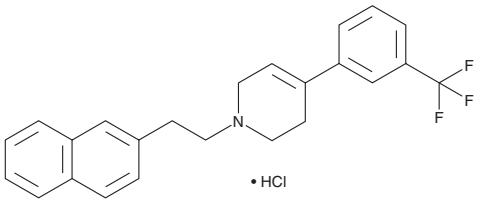
PRODUCT INFORMATION

Xaliproden (hydrochloride)

Item No. 31468

CAS Registry No.:	90494-79-4
Formal Name:	1,2,3,6-tetrahydro-1-[2-(2-naphthalenyl) ethyl]-4-[3-(trifluoromethyl)phenyl]-pyridine, monohydrochloride
Synonym:	SR 57746A
MF:	$C_{24}H_{22}F_3N \bullet HCl$
FW:	417.9
Purity:	≥98%
UV/Vis.:	λ_{max}: 224 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

Xaliproden (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the xaliproden (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Xaliproden (hydrochloride) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of xaliproden (hydrochloride) in these solvents is approximately 1 mg/ml.

Description

Xaliproden is an agonist of the serotonin (5-HT) receptor subtype 5-HT_{1A} (IC_{50} = 4.3 nM in a radioligand binding assay).[1] It is selective for 5-HT_{1A} over 5-HT_2 and α_1-adrenergic receptors (IC_{50}s = 697 and 630 nM, respectively), as well as a panel of 13 additional neurotransmitter receptors and ion channels (IC_{50}s = ≥10 µM for all) but also binds sigma (σ) receptors (IC_{50} = 73 nM). Xaliproden (250 nM) increases NGF-induced neurite outgrowth and α-actinin levels in PC12 cells.[2] It decreases hippocampal neuronal damage and reduces impairments in sensorimotor function in rat models of transient global ischemia induced by four-vessel occlusion (4-VO) and sciatic nerve crush injury, respectively, when administered at a dose of 10 mg/kg per day.[3] Xaliproden (10 mg/kg per day) inhibits CNS mononuclear cell infiltration and increases in cerebrospinal fluid IgG levels in a rat model of experimental autoimmune encephalomyelitis (EAE) induced by myelin basic protein.[4]

References

1. Bachy, A., Steinberg, R., Santucci, V., *et al.* Biochemical and electrophysiological properties of SR 57746A, a new, potent 5-HT_{1A} receptor agonist. *Fundam. Clin. Pharmacol.* **7(9)**, 487-497 (1993).
2. Pradines, A., Magazin, M., Schlitz, P., *et al.* Evidence for nerve growth factor-potentiating activities of the nonpeptidic compound SR 57746A in PC12 cells. *J. Neurochem.* **64(5)**, 1954-1964 (1995).
3. Fournier, J., Steinberg, R., Gauthier, T., *et al.* Protective effects of SR 57746A in central and peripheral models of neurodegenerative disorders in rodents and primates. *Neuroscience* **55(3)**, 629-641 (1993).
4. Bourrié, B., Bribes, E., Esclangon, M., *et al.* The neuroprotective agent SR 57746A abrogates experimental autoimmune encephalomyelitis and impairs associated blood-brain barrier disruption: Implications for multiple sclerosis treatment. *Proc. Natl. Acad. Sci. U.S.A.* **96(22)**, 12855-12859 (1999).

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