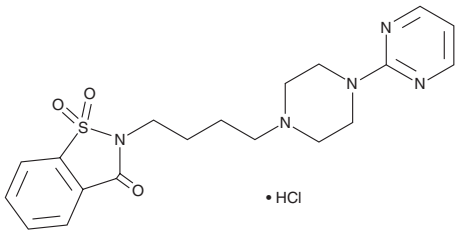
PRODUCT INFORMATION

Ipsapirone (hydrochloride)

Item No. 22075

CAS Registry No.: 95847-70-4
Formal Name: 2-[4-[4-(2-pyrimidinyl)-1-piperazinyl]butyl]-1,2-benzisothiazol-3(2H)-one, 1,1-dioxide, monohydrochloride
Synonym: TVXQ 7821
MF: $C_{19}H_{23}N_5O_3S \bullet HCl$
FW: 437.9
Purity: ≥98%
UV/Vis.: λ_{max}: 236, 284 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

Ipsapirone (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the ipsapirone (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Ipsapirone (hydrochloride) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of ipsapirone (hydrochloride) in these solvents is approximately 20 and 10 mg/ml, respectively. Ipsapirone (hydrochloride) is also slightly soluble in ethanol.

Ipsapirone (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ipsapirone (hydrochloride) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Ipsapirone (hydrochloride) has a solubility of approximately 0.025 mg/ml in a 1:40 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Ipsapirone is a partial agonist of the serotonin (5-HT) receptor 5-HT_{1A} (K_i = 10 nM in hippocampal membranes).[1] It reduces 5-HT release in rat ventral hippocampus *in vivo*.[2] Low doses of ipsapirone decrease, while high doses increase, extracellular dopamine release in murine nucleus accumbens.[3] Extracellular dopamine levels in murine striatum increase following administration of ipsapirone at concentrations >0.1 mg/kg. Ipsapirone has anxiolytic effects *in vivo*, inhibiting foot shock-induced aggression and passive avoidance behavior in rats (ED_{50}s = 2.2 and 0.5 mg/kg, respectively).[4] Formulations containing ipsapirone have been used to treat depression and borderline personality disorder.[5]

References

1. Rausch, J.L., Johnson, M.E., Kasik, K.E., *et al. Neuropsychopharmacology* **31(10)**, 2274-2280 (2006).
2. Traber, J., Davies, M.A., Dompert, W.U., *et al. Brain Res. Bull.* **12(6)**, 741-744 (1984).
3. Ichikawa, J. and Meltzer, H.Y. *Brain Res.* **842(2)**, 445-451 (1999).
4. Sharp, T., Bramwell, S.R., and Grahame-Smith, D.G. *Br. J. Pharmacol.* **96(2)**, 283-290 (1989).
5. Glaser, T. and Traber, J. *Naunyn Schmiedebergs Arch. Pharmacol.* **329(3)**, 211-215 (1985).

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