Ipsapirone

Cat. No.: HY-19686

CAS No.: 95847-70-4

Molecular Formula: $C_{19}H_{23}N_5O_3S$

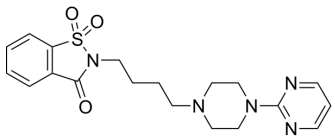
Molecular Weight: 401.48

Target: 5-HT Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (62.27 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.4908 mL	12.4539 mL	24.9078 mL
	5 mM	0.4982 mL	2.4908 mL	4.9816 mL
	10 mM	0.2491 mL	1.2454 mL	2.4908 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Ipsapirone (TVX Q 7821) is an anxiolytic compound and a 5-HT_{1A} receptor partial agonist. Ipsapirone (TVX Q 7821) also exhibits 5-HT_{1A} receptor antagonistic effect, and only at high doses it can also produce an inhibitory effect on 5-HT_2 and the α_1-adrenergic function[1][2].

IC_{50} & Target

5-HT_{1A} Receptor

In Vivo

Ipsapirone inhibits induced by 8-OH-DPAT and 5-methoxydimethyltryptamine (agonists of 5-HT1A receptors) behavioural effects (flat body posture and forepaw treading) in normal and reserpinized rats[1].

Ipsapirone (2.5-80 mg/kg), given alone to rats induces a slight flattening of body posture (~ 1 point at the highest dose) and a mild hind limb abduction observed at doses 2.5-80 mg/kg. Ipsapirone given alone at low doses (2.5-10 mg/kg i.p.) does not significantly change the body temperature in rats and mice, but decreased it in both those species at high doses (35 mg/kg i.p.) by ca. 2-2.5□[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male Albino-Swiss mice (18-24 g) and male Wistar rats (160-200 g)[1].

Dosage:	5 and 10 mg/kg.
Administration:	IP 30 min before 8-OH-DPAT and 5-MeODMT injections.
Result:	Behavioural responses (flat body posture, forepaw treading) to 8-OH-DPAT (5 mg/kg s.c.) in rats were antagonized by Ipsapirone (5 and 10 mg/kg i.p.).

REFERENCES

[1]. J Maj, et al. Central action of ipsapirone, a new anxiolytic drug, on serotoninergic, noradrenergic and dopaminergic functions. J Neural Transm. 1987;70(1-2):1-17.

[2]. Stephen M. Stahl, et al. Effectiveness of ipsapirone, a 5-HT-1A partial agonist, in major depressive disorder: support for the role of 5-HT-1A receptors in the mechanism of action of serotonergic antidepressants. Int J Neuropsychopharmacol. 1998 Jul;1(1):11-18.

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