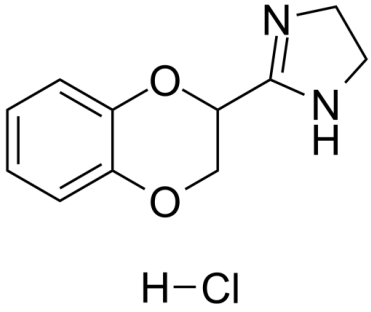
Data Sheet

Product Name:	Idazoxan (hydrochloride)
Cat. No.:	CS-0013117
CAS No.:	79944-56-2
Molecular Formula:	$C_{11}H_{13}ClN_2O_2$
Molecular Weight:	240.69
Target:	Adrenergic Receptor; Imidazoline Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Solubility:	DMSO : 125 mg/mL (519.34 mM; Need ultrasonic); H2O : 100 mg/mL (415.47 mM; Need ultrasonic)



BIOLOGICAL ACTIVITY:

Idazoxan hydrochloride (RX 781094 hydrochloride) is an **α_2-adrenoceptor** antagonist and is also a **imidazoline receptors (IRs)** antagonist competitively antagonized the centrally induced hypotensive effect of imidazoline-like drugs (IMs). Idazoxan hydrochloride also improves motor symptoms in Parkinson's disease, L-DOPA-induced dyskinesias, and experimental Parkinsonism[1][2]. IC50 & Target: α_2-adrenoceptor[1]; Imidazoline receptors (IRs)[2] **In Vivo:** Idazoxan (0.16-5 mg/kg; subcutaneous injection; for 1 hour; male CD-COBS rats) treatment potently reverses haloperidol-induced catalepsy with an **ED_{50}** of 0.25 mg/kg. Idazoxan (0.3 and 2.5 mg/kg) has no effect on extracellular DA and do not modify the rise of extracellular DA induced by haloperidol[1].

References:

[1]. Roberto W Invernizzi, et al. The α2-Adrenoceptor Antagonist Idazoxan Reverses Catalepsy Induced by Haloperidol in Rats Independent of Striatal Dopamine Release: Role of Serotonergic Mechanisms. Neuropsychopharmacology volume 28, pages872-879 (2003).

[2]. Bousquet P, et al. Participation of imidazoline receptors and alpha(2-)-adrenoceptors in the central hypotensive effects of imidazoline-like drugs. Ann N Y Acad Sci. 1999 Jun 21;881:272-8.

CAIndexNames:

1H-Imidazole, 2-(2,3-dihydro-1,4-benzodioxin-2-yl)-4,5-dihydro-, hydrochloride (1:1)

SMILES:

[H]Cl.C1(C2OC3=CC=CC=C3OC2)=NCCN1

Caution: Product has not been fully validated for medical applications. For research use only.

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