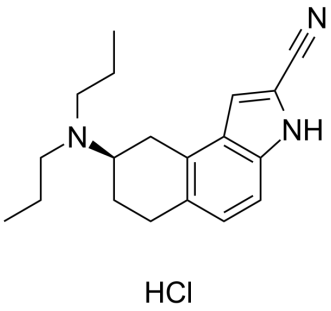
U92016A hydrochloride

Cat. No.:	HY-117507
CAS No.:	149654-41-1
Molecular Formula:	$C_{19}H_{26}ClN_3$
Molecular Weight:	331.88
Target:	5-HT Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	U92016A hydrochloride is a potent, metabolically stable, orally acitive 5-HT1A receptor agonist with an exceptionally high degree of intrinsic activity[1][2]. U92016A hydrochloride binds with high affinity to human 5-HT1A receptors expressed in Chinese hamster ovary cells (K_i=0.2 nM)[2].
IC_{50} & Target	5-HT_{1A} Receptor 0.2 nM (Ki)
In Vitro	U92016A (U-92016A) is selective for the 5-HT1A receptor over other biogenic amine receptors. U92016A decreases the Forskolin-induced increase in cyclic AMP synthesis and has an intrinsic activity of 0.82 relative to 5-HT in Chinese hamster ovary cells expressing the human 5HT1A receptor[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	U92016A (U-92016A) potently decreases rectal temperature in mice. U92016A also elicits the 5-HT-mediated syndrome in rats and results in a dose-related decrease in 5-hydroxytryptophan accumulation. U92016A also decreases arterial blood pressure in spontaneously hypertensive rats and inhibits sympathetic nerve activity in cats. U92016A displays excellent potency and a long duration of action. U92016A also inhibits the firing of dorsal raphe 5-HT neurons and is active in two social interaction assays. The p.o. bioavailability of U92016A is 45%[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. A G Romero, et al. Novel 2-substituted tetrahydro-3H-benz[e]indolamines: highly potent and selective agonists acting at the 5-HT1A receptor as possible anxiolytics and antidepressants. J Med Chem. 1993 Jul 23;36(15):2066-74.

[2]. R B McCall, et al. Characterization of U-92016A as a selective, orally active, high intrinsic activity 5-hydroxytryptamine1A agonist. J Pharmacol Exp Ther. 1994 Nov;271(2):875-83.

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

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