PNU-177864 hydrochloride

Cat. No.: HY-103406A

CAS No.: 1783978-03-9

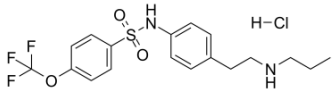
Molecular Formula: $C_{18}H_{22}ClF_3N_2O_3S$

Molecular Weight: 438.89

Target: Dopamine Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	PNU-177864 hydrochloride is a potent, selective and orally active dopamine D_3 receptor antagonist. PNU-177864 hydrochloride is structurally consistent with a cationic amphiphilic drug (CAD) and induces phospholipidosis in vivo. PNU-177864 hydrochloride antischizophrenic activity[1][2].
IC_{50} & Target	D_3 Receptor
In Vivo	PNU-177864 (12.5-200 mg/kg; oral gavage; daily; for 2-4 weeks; Sprague-Dawley rats) treatment induces phospholipidosis in unusual target organs in dogs or rats including epididymis, pituitary, and hair follicles[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male and female Sprague-Dawley rats (8-9-week-old)[1]
Dosage:	12.5 mg/kg, 50 mg/kg (for 2 weeks), or 200 mg/kg; 8 mg/kg, 25 mg/kg, or 80 mg/kg (for 4 weeks)
Administration:	Oral gavage; daily; for 2-4 weeks
Result:	Induced phospholipidosis in unusual target organs in dogs or rats including epididymis, pituitary, and hair follicles.

REFERENCES

[1]. Rudmann DG, et al. Epididymal and systemic phospholipidosis in rats and dogs treated with the dopamine D3 selective antagonist PNU-177864. Toxicol Pathol. 2004 May-Jun;32(3):326-32.

[2]. Vonderfecht SL, et al. Myopathy related to administration of a cationic amphiphilic drug and the use of multidose drug distribution analysis to predict its occurrence. Toxicol Pathol. 2004 May-Jun;32(3):318-25.

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

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