DIPPA hydrochloride

Cat. No.: HY-101223

CAS No.: 155512-52-0

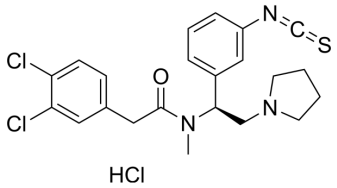
Molecular Formula: $C_{22}H_{24}Cl_3N_3OS$

Molecular Weight: 484.87

Target: Opioid Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

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



BIOLOGICAL ACTIVITY

Description	DIPPA (hydrochloride) is an irreversible, long-lasting, selective and high affinity κ-opioid receptor antagonist. DIPPA (hydrochloride) can be used for the research of anxiety and antidepressant[1][2][3][4].
IC_{50} & Target	κ Opioid Receptor/KOR

In Vivo

DIPPA (2.5 and 5 mg/kg; s.c.) hydrochloride decreases the latency to feed in Wistar Kyoto rats, but treatment did not alter approach latencies in SD rats[2].

DIPPA (1 and 5 mg/kg; s.c.) hydrochloride high dose increases immobility in SD rats compared to the saline-treated strain control group[2].

DIPPA (5 mg/kg) hydrochloride decreases consumption in SD rats compared to the 5 mg/kg group of Wistar Kyoto rats. DIPPA hydrochloride significantly decreases burying time in both strains. DIPPA (5 mg/kg) hydrochloride decreases burying in both strains compared to the within strain control groups. DIPPA hydrochloride tends to decrease consumption in SD rats in the home cage but significantly increases feeding in the novel cage where potential anxiolytic-like effects of DIPPA hydrochloride may oppose the hypophagic effects of the compound[2].

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

Animal Model:	Wistar Kyoto rats and SD rats (250–300 g)[2]
Dosage:	2.5 and 5 mg/kg
Administration:	S.c.
Result:	Decreased the latency to feed in Wistar Kyoto rats, but treatment did not alter approach latencies in SD rats.

Animal Model:	Wistar Kyoto rats and SD rats (250–300 g)[2]
Dosage:	1 and 5 mg/kg
Administration:	S.c.
Result:	High dose increased immobility in SD rats compared to the saline-treated strain control group.

REFERENCES

[1]. Jones DC, et al. Identification of a κ-opioid agonist as a potent and selective lead for drug development against human African trypanosomiasis. Biochem Pharmacol. 2010;80(10):1478-1486.

[2]. Carr GV, et al. Comparison of the kappa-opioid receptor antagonist DIPPA in tests of anxiety-like behavior between Wistar Kyoto and Sprague Dawley rats. Psychopharmacology (Berl). 2010;210(2):295-302.

[3]. Costello GF, et al. 2-(3,4-Dichlorophenyl)-N-methyl-N-[2-(1-pyrrolidinyl)-1-substituted- ethyl]-acetamides: the use of conformational analysis in the development of a novel series of potent opioid kappa agonists. J Med Chem. 1991;34(1):181-189.

[4]. Chang AC, et al. kappa Opioid receptor selective affinity labels: electrophilic benzeneacetamides as kappa-selective opioid antagonists. J Med Chem. 1994;37(26):4490-4498.

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