Roxatidine Acetate Hydrochloride

Cat. No.: HY-B0305A

CAS No.: 93793-83-0

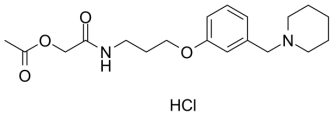
Molecular Formula: $C_{19}H_{29}ClN_2O_4$

Molecular Weight: 384.9

Target: Histamine Receptor

Pathway: GPCR/G Protein; Immunology/Inflammation; Neuronal Signaling

Storage: 4°C, sealed storage, away from moisture
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (129.90 mM; Need ultrasonic)
H_2O : ≥ 50 mg/mL (129.90 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.5981 mL	12.9904 mL	25.9808 mL
5 mM	0.5196 mL	2.5981 mL	5.1962 mL
10 mM	0.2598 mL	1.2990 mL	2.5981 mL

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

In Vivo

1. Add each solvent one by one: PBS
Solubility: 140 mg/mL (363.73 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

Roxatidine Acetate Hydrochloride (HOE 760) is a selective histamine H_2 receptor antagonist, can be used for the research of gastric and duodenal ulcers. Roxatidine Acetate Hydrochloride can be rapidly converted to its active metabolite, roxatidine, by esterases in the small intestine, plasma, and liver[1].

IC_{50} & Target

H_2 Receptor

In Vitro

Roxatidine Acetate Hydrochloride (6.25 μM, 12.5 μM, and 25 μM; pre-treatment for 30 min) suppresses the PMACI-induced activation of p38 MAPK, but does not affect the phosphorylation of ERK or JNK. The total ERK 1/2, JNK, and p38 MAPK levels are unaffected by roxatidine in human mast-cells-1 (HMC-1) cells[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Roxatidine Acetate Hydrochloride (oral gavage; 20 mg/kg; single dose) inhibits Compound 48/80-increased TNF-α, IL-6, and

IL-1β production and mRNA expression. Additionally, Roxatidine decreases the compound 48/80-induced degradation of procaspase-1 and appearance of the corresponding cleaved bands in mice[1].

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

Animal Model:	ICR male mice (6 weeks old)[1]
Dosage:	20 mg/kg
Administration:	Oral gavage; 20 mg/kg; single dose
Result:	Suppressed compound 48/80-induced allergic inflammation in anaphylactic animal model.

REFERENCES

[1]. Minho Lee, et al. Roxatidine attenuates mast cell-mediated allergic inflammation via inhibition of NF-κB and p38 MAPK activation. Sci Rep. 2017 Jan 31;7:41721.

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