# Bavisant dihydrochloride hydrate

**Cat. No.:** HY-14880B

**CAS No.:** 1103522-80-0

**Molecular Formula:** $C_{19}H_{31}Cl_2N_3O_3$

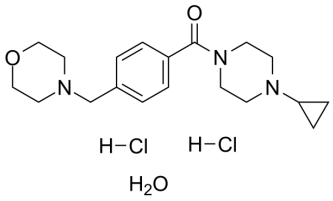
**Molecular Weight:** 420.37

**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**

$H_2O$ : ≥ 50 mg/mL (118.94 mM)

DMSO : ≥ 1 mg/mL (2.38 mM)

* "≥" means soluble, but saturation unknown.

**Preparing Stock Solutions**

| Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|
| 1 mM | 2.3789 mL | 11.8943 mL | 23.7886 mL |
| 5 mM | 0.4758 mL | 2.3789 mL | 4.7577 mL |
| 10 mM | 0.2379 mL | 1.1894 mL | 2.3789 mL |

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

**In Vivo**

1. Add each solvent one by one: PBS
   Solubility: 50 mg/mL (118.94 mM); Clear solution; Need ultrasonic

## BIOLOGICAL ACTIVITY

**Description**

Bavisant dihydrochloride hydrate (JNJ31001074AAC) is an orally active, potent, brain-penetrating and highly selective antagonist of the histamine $H_3$ receptor. Bavisant dihydrochloride hydrate can be used for attention-deficit hyperactivity disorder (ADHD) research[1][2][3].

**$IC_{50}$ & Target**

$H_3$ receptor

**In Vivo**

Bavisant dihydrochloride hydrate increases acetylcholine levels in rat frontal cortex[4].

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

## REFERENCES

[1]. Ghoshal A, et al. Identification of novel β-lactams and pyrrolidinone derivatives as selective Histamine-3 receptor (H3R) modulators as possible anti-obesity agents. Eur J Med Chem. 2018 May 25;152:148-159.

[2]. Ghamari N, et al. Histamine H3 receptor antagonists/inverse agonists: Where do they go? Pharmacol Ther. 2019 Aug;200:69-84.

[3]. Hudkins RL, et al. Discovery and characterization of 6-{4-[3-(R)-2-methylpyrrolidin-1-yl)propoxy]phenyl}-2H-pyridazin-3-one (CEP-26401, irdabisant): a potent, selective histamine H3 receptor inverse agonist. J Med Chem. 2011 Jul 14;54(13):4781-92.

[4]. Weisler RH, et al. Randomized clinical study of a histamine H3 receptor antagonist for the treatment of adults with attention-deficit hyperactivity disorder. CNS Drugs. 2012 May 1;26(5):421-34.



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