Trimethobenzamide hydrochloride

Cat. No.: HY-12751A

CAS No.: 554-92-7

Molecular Formula: $C_{21}H_{29}ClN_2O_5$

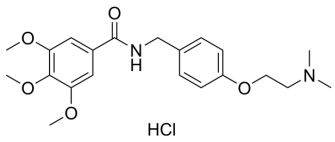
Molecular Weight: 424.92

Target: Dopamine Receptor; Influenza Virus

Pathway: GPCR/G Protein; Neuronal Signaling; Anti-infection

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 : ≥ 100 mg/mL (235.34 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.3534 mL	11.7669 mL	23.5338 mL
5 mM	0.4707 mL	2.3534 mL	4.7068 mL
10 mM	0.2353 mL	1.1767 mL	2.3534 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (5.88 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (5.88 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.88 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Trimethobenzamide hydrochloride is a blocker of the D_2 receptor. Trimethobenzamide is an antiemetic used to prevent nausea and vomiting.

IC_{50} & Target

D_2 receptor[1]

In Vitro

Trimethobenzamide is a (non-phenothiazine) benzamide antiemetic that acts centrally to block D2 receptors, thereby inhibiting the medullary chemoreceptor trigger zone by blocking emetic impulses to the vomiting center[1].

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

In Vivo	The oral bioavailability of Trimethobenzamide is 60% to 100%. The time to peak is about 45 minutes after oral administration and; Intramuscular (I.M.) administration about 30 minutes after intramuscular administration[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Smith HS, et al. Dopamine receptor antagonists. Ann Palliat Med. 2012 Jul;1(2):137-42.

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