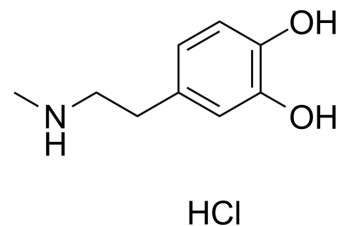


N-Methyldopamine hydrochloride

Cat. No.:	HY-W014728
CAS No.:	62-32-8
Molecular Formula:	C ₉ H ₁₄ ClNO ₂
Molecular Weight:	203.67
Target:	Dopamine Receptor
Pathway:	GPCR/G Protein; 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

H₂O : ≥ 100 mg/mL (490.99 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
	1 mM		4.9099 mL	24.5495 mL	49.0990 mL
	5 mM		0.9820 mL	4.9099 mL	9.8198 mL
	10 mM		0.4910 mL	2.4550 mL	4.9099 mL

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

BIOLOGICAL ACTIVITY

Description

N-Methyldopamine hydrochloride is a precursor of adrenaline in the adrenal medulla. N-Methyldopamine hydrochloride is a modification of the dopamine (DA), and retains agonist activity at the DA1 receptor. N-Methyldopamine hydrochloride remains capable of universal surface coating and secondary reactions using the surface catechols. N-Methyldopamine hydrochloride can be used for heart failure research^{[1][2][3]}.

IC₅₀ & Target

D₁ Receptor

In Vitro

N-Methyldopamine hydrochloride shows highly improved surface coating properties, and exhibits an accelerated coating rate. N-Methyldopamine hydrochloride coating makes solid surface cell adhesion possible, and postfunctionalization of the coating is also possible^[1].

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

REFERENCES

[1]. Laduron P. N-Methyldopamine (epinine), a precursor of adrenaline in the adrenal medulla. Arch Int Pharmacodyn Ther. 1972 Apr;196:Suppl 196:304-.

[2]. Rajfer SI, et al. Effects of long-term therapy with oral ibopamine on resting hemodynamics and exercise capacity in patients with heart failure: relationship to the generation of N-methyldopamine and to plasma norepinephrine levels. Circulation. 1986 Apr;

[3]. Kim Y, et al. Effect of N-Methylation on Dopamine Surface Chemistry. Langmuir. 2022 May 24;38(20):6404-6410.

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

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