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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

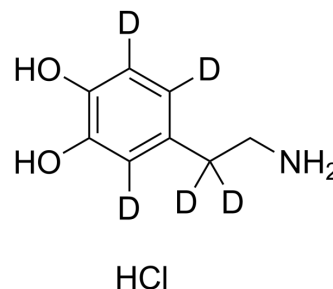
mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

Dopamine-d₅ hydrochloride

Cat. No.:	HY-B0451AS7
CAS No.:	2193106-55-5
Molecular Formula:	C ₈ H ₇ D ₅ ClNO ₂
Molecular Weight:	194.67
Target:	Dopamine Receptor; Ferroptosis; Endogenous Metabolite; Isotope-Labeled Compounds
Pathway:	GPCR/G Protein; Neuronal Signaling; Apoptosis; Metabolic Enzyme/Protease; Others
Storage:	-20°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 : 50 mg/mL (256.84 mM; Need ultrasonic and warming)

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		5.1369 mL	25.6845 mL	51.3690 mL
	5 mM		1.0274 mL	5.1369 mL	10.2738 mL
	10 mM		0.5137 mL	2.5684 mL	5.1369 mL

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

BIOLOGICAL ACTIVITY

Description

Dopamine-d₅ (hydrochloride) is the deuterium labeled Dopamine (hydrochloride). Dopamine hydrochloride (ASL279) is a catecholamine neurotransmitter that is produced in the substantia nigra, ventral tegmental area, and hypothalamus of the brain. Dopamine hydrochloride (ASL279) plays several important roles in the brain and body[1]. Dopamine hydrochloride (ASL279) acts through D2 dopamine receptors to induce endocytosis of VEGFR2, which is critical for promoting angiogenesis[1].

In Vitro

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

[2]. Juárez Olguín H, et al. The Role of Dopamine and Its Dysfunction as a Consequence of Oxidative Stress. *Oxid Med Cell Longev*. 2016;2016:9730467.

[3]. Basu S, et al. The neurotransmitter dopamine inhibits angiogenesis induced by vascular permeability factor/vascular endothelial growth factor. *Nat Med*. 2001 May;7(5):569-74.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA