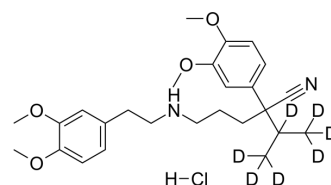


## Norverapamil-d<sub>7</sub> hydrochloride

Cat. No.:	HY-135328AS
CAS No.:	1216413-74-9
Molecular Formula:	C <sub>26</sub> H <sub>30</sub> D <sub>7</sub> ClN <sub>2</sub> O <sub>4</sub>
Molecular Weight:	484.08
Target:	Calcium Channel
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
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	H <sub>2</sub> O : 15 mg/mL (30.99 mM; Need ultrasonic and warming)					
	Preparing Stock Solutions	<div><div>Solvent</div><div>Concentration</div></div>	Mass	1 mg	5 mg	10 mg
		1 mM	2.0658 mL	10.3289 mL	20.6577 mL	
		5 mM	0.4132 mL	2.0658 mL	4.1315 mL	
		10 mM	0.2066 mL	1.0329 mL	2.0658 mL	
Please refer to the solubility information to select the appropriate solvent.						

### BIOLOGICAL ACTIVITY

Description	Norverapamil-d <sub>7</sub> (hydrochloride) is a deuterium labeled Norverapamil. Norverapamil ((±)-Norverapamil), an N-demethylated metabolite of Verapamil, is a L-type calcium channel blocker and a P-glycoprotein (P-gp) function inhibitor[1][2].
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 <sup>[3]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

- [1]. Adams KN, et al. Verapamil, and its metabolite norverapamil, inhibit macrophage-induced, bacterial efflux pump-mediated tolerance to multiple anti-tubercular drugs. J Infect Dis. 2014 Aug 1;210(3):456-66.
- [2]. Pauli-Magnus C, et al. Characterization of the major metabolites of verapamil as substrates and inhibitors of P-glycoprotein. J Pharmacol Exp Ther. 2000 May;293(2):376-82.

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

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