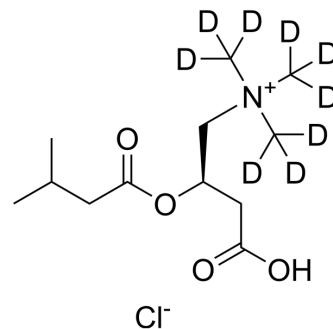


## Isovalerylcarnitine-d<sub>9</sub> chloride

Cat. No.:	HY-145542S
CAS No.:	1334532-23-8
Molecular Formula:	C <sub>12</sub> H <sub>15</sub> D <sub>9</sub> ClNO <sub>4</sub>
Molecular Weight:	290.83
Target:	Proteasome; Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

Description	Isovalerylcarnitine-d <sub>9</sub> (chloride) is the deuterium labeled Isovalerylcarnitine (chloride)[1]. Isovalerylcarnitine chloride, a product of the catabolism of L-leucine, is a potent activator of the Ca <sup>2+</sup> -dependent proteinase (calpain) of human neutrophils[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. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs <sup>[1]</sup> . 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 Feb;53(2):211-216.
- [2]. Pontremoli S, et al. Isovalerylcarnitine is a specific activator of calpain of human neutrophils. Biochem Biophys Res Commun. 1987 Nov 13;148(3):1189-95.

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

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