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Produktinformation



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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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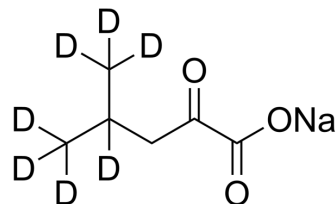
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4-Methyl-2-oxopentanoic acid-d₇ sodium

Cat. No.:	HY-W012722BS
CAS No.:	1795020-84-6
Molecular Formula:	C ₆ H ₂ D ₇ NaO ₃
Molecular Weight:	159.17
Target:	Endogenous Metabolite; Isotope-Labeled Compounds
Pathway:	Metabolic Enzyme/Protease; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	4-Methyl-2-oxopentanoic acid-d ₇ (α-Ketoisocaproic acid-d ₇) sodium is the deuterium labeled 4-Methyl-2-oxopentanoic acid (HY-W012722). 4-Methyl-2-oxopentanoic acid is a metabolite of L-leucine and is involved in energy metabolism. 4-Methyl-2-oxopentanoic acid increases endoplasmic reticulum stress, promotes lipid accumulation in preadipocytes and insulin resistance by impairing mTOR and autophagy signaling pathways ^{[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. 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.

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

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