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Product Data Sheet

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Sodium 2-oxopropanoate- $^{13}C_3$

Cat. No.:	HY-W015913S	
CAS No.:	142014-11-7	Ο
Molecular Formula:	$^{13}C_3H_3NaO_3$	Ĩ
Molecular Weight:	113.02	$H_3^{13}C_1^$
Target:	Endogenous Metabolite; Reactive Oxygen Species	¹³ C´ `ONa
Pathway:	Metabolic Enzyme/Protease; Immunology/Inflammation; NF-кВ	
Storage:	-20°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)	0

SOLVENT & SOLUBILITY

	Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
		1 mM	8.8480 mL	44.2400 mL	88.4799 mL
		5 mM	1.7696 mL	8.8480 mL	17.6960 mL
		10 mM	0.8848 mL	4.4240 mL	8.8480 mL

BIOLOGICAL ACTIVITY			
Description	Sodium 2-oxopropanoate- ¹³ C ₃ is the ¹³ C-labeled Sodium 2-oxopropanoate. Sodium 2-oxopropanoate (Sodium pyruvate), a three-carbon metabolite of Glucose, is a compound produced in the glycolytic pathway. Sodium 2-oxopropanoate is a free radical scavenger that can scavenge ROS[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.

[2]. S Nemoto, et al. Role for mitochondrial oxidants as regulators of cellular metabolism. Mol Cell Biol. 2000 Oct;20(19):7311-8.

[3]. W Zhao, et al. Fructose induced deactivation of antioxidant enzymes: preventive effect of pyruvate. Free Radic Res. 2000 Jul;33(1):23-30.

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

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