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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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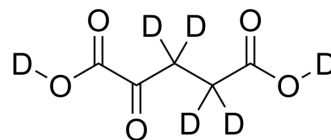
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2-Ketoglutaric acid-d₆

Cat. No.:	HY-W013636S2		
CAS No.:	1173021-86-7		
Molecular Formula:	C ₅ D ₆ O ₅		
Molecular Weight:	152.14		
Target:	Tyrosinase; Endogenous Metabolite		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 250 mg/mL (1643.22 mM; Need ultrasonic and warming)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	6.5729 mL	32.8645 mL	65.7289 mL
5 mM	1.3146 mL	6.5729 mL	13.1458 mL
10 mM	0.6573 mL	3.2864 mL	6.5729 mL

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

BIOLOGICAL ACTIVITY

Description

2-Ketoglutaric acid-d₆ is the deuterium labeled 2-Ketoglutaric acid[1]. 2-Ketoglutaric acid (Alpha-Ketoglutaric acid) is an intermediate in the production of ATP or GTP in the Krebs cycle. 2-Ketoglutaric acid also acts as the major carbon skeleton for nitrogen-assimilatory reactions. 2-Ketoglutaric acid is a reversible inhibitor of tyrosinase (IC₅₀=15 mM)[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 Feb;53(2):211-216.

[2]. Huergo LF, et al. The Emergence of 2-Oxoglutarate as a Master Regulator Metabolite. *Microbiol Mol Biol Rev*. 2015 Dec;79(4):419-35.

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

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