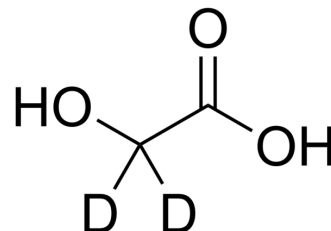


Glycolic acid-d₂

Cat. No.:	HY-W015967S		
CAS No.:	75502-10-2		
Molecular Formula:	C ₂ H ₂ D ₂ O ₃		
Molecular Weight:	78.06		
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 : 100 mg/mL (1281.07 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	12.8107 mL	64.0533 mL	128.1066 mL
		5 mM	2.5621 mL	12.8107 mL	25.6213 mL
10 mM		1.2811 mL	6.4053 mL	12.8107 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (32.03 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (32.03 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (32.03 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	Glycolic acid-d ₂ is the deuterium labeled Glycolic acid. Glycolic acid is an inhibitor of tyrosinase, suppressing melanin formation and lead to a lightening of skin colour.
In Vitro	<p>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].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.
- [2]. Usuki A, et al. The inhibitory effect of glycolic acid and lactic acid on melanin synthesis in melanoma cells. *Exp Dermatol.* 2003;12 Suppl 2:43-50.
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Caution: Product has not been fully validated for medical applications. For research use only.

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