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Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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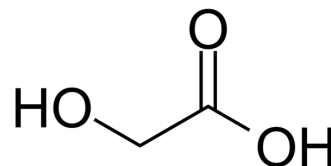
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Glycolic acid

Cat. No.:	HY-W015967		
CAS No.:	79-14-1		
Molecular Formula:	C ₂ H ₄ O ₃		
Molecular Weight:	76.05		
Target:	Endogenous Metabolite; Tyrosinase		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

H₂O : 100 mg/mL (1314.92 mM; Need ultrasonic)
 DMSO : ≥ 100 mg/mL (1314.92 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	13.1492 mL	65.7462 mL	131.4924 mL
	5 mM	2.6298 mL	13.1492 mL	26.2985 mL
	10 mM	1.3149 mL	6.5746 mL	13.1492 mL

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

In Vivo

- Add each solvent one by one: PBS
Solubility: 100 mg/mL (1314.92 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (32.87 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (32.87 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (32.87 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	Glycolic acid is an inhibitor of tyrosinase, suppressing melanin formation and lead to a lightening of skin colour.	
IC₅₀ & Target	Microbial Metabolite	Human Endogenous Metabolite

In Vitro

Different concentrations of Glycolic acid (GA) or LA (300 and 500 mg/mL) are tested on the growth of mouse and human melanoma cells. Both types of cells grow well, even in the presence of 300 mg/mL of each chemical for 5 days. However, 500 mg/mL Glycolic acid inhibits the cell growth of mouse melanoma cells (41%) and human melanoma cells (27%), and 500 mg/mL of LA inhibits the growth of mouse melanoma cells (36%)^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Cell Assay ^[1]

HM3KO pigmented human melanoma cells and B16 mouse melanoma cells are cultured in Dulbecco's modified Eagles medium supplemented with 10% fetal calf serum and appropriate amounts of antibiotics and fungizone were dissolved at a concentration of 100mg/mL in distilled water. These chemicals (e.g., Glycolic Acid) are added to the cell cultures at final concentrations of 300 or 500 mg/mL every 2 days for 5 days^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. 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.

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

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