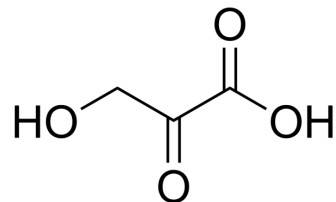


Hydroxypyruvic acid

Cat. No.:	HY-113013		
CAS No.:	1113-60-6		
Molecular Formula:	C ₃ H ₄ O ₄		
Molecular Weight:	104.06		
Target:	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

H₂O : 40 mg/mL (384.39 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	9.6098 mL	48.0492 mL	96.0984 mL
	5 mM	1.9220 mL	9.6098 mL	19.2197 mL
	10 mM	0.9610 mL	4.8049 mL	9.6098 mL

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

BIOLOGICAL ACTIVITY

Description

Hydroxypyruvic acid (β-Hydroxypyruvic acid) is an intermediate in the metabolism of glycine, serine and threonine. Hydroxypyruvic acid is a substrate for serine-pyruvate aminotransferase and glyoxylate reductase/hydroxypyruvate reductase. Hydroxypyruvic acid is involved in the metabolic disorder which is the dimethylglycine dehydrogenase deficiency pathway.

IC₅₀ & Target

Human Endogenous Metabolite

In Vivo

Hydroxypyruvic acid (intravenous injection; 100 mg/ml; slowly over 10 min) increases the 5-h urinary oxalate and glycolate excretion to 0.68% (6.56 μmol) and 0.53% (5.10 μmol) in control rats, in addition, it increases to 2.43% (23.36 μmol) and 0.79% (7.59 μmol) of the dose in the vitamin-B6-deficient rats^[1].

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

Animal Model:	SD rat ^[1]
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Dosage:	100 mg/ml; slowly over 10 min
Administration:	Intravenous injection
Result:	Led to a significant increase of urinary oxalate and glycolate excretion in both control and vitamin-B6-deficient rats, but these changes are exaggerated in the vitamin-B6-deficient group.

REFERENCES

[1]. Teerajetgul Y, et al. Oxalate synthesis from hydroxypyruvate in vitamin-B6-deficient rats. Urol Res. 2007 Aug;35(4):173-8. Epub 2007 Jun 13.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA