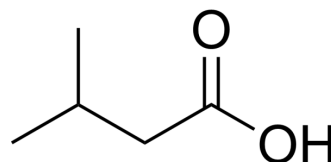


## Isovaleric acid

<b>Cat. No.:</b>	HY-W012980		
<b>CAS No.:</b>	503-74-2		
<b>Molecular Formula:</b>	C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>		
<b>Molecular Weight:</b>	102.13		
<b>Target:</b>	Endogenous Metabolite		
<b>Pathway:</b>	Metabolic Enzyme/Protease		
<b>Storage:</b>	Pure form	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : 100 mg/mL (979.14 mM; Need ultrasonic)  
 DMSO : 100 mg/mL (979.14 mM; Need ultrasonic)

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	9.7914 mL	48.9572 mL	97.9144 mL
	5 mM	1.9583 mL	9.7914 mL	19.5829 mL
	10 mM	0.9791 mL	4.8957 mL	9.7914 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 (979.14 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 (24.48 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (24.48 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (24.48 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Isovaleric acid is a natural fatty acid and known to effect on neonatal death and possible Jamaican vomiting sickness in human.

#### IC<sub>50</sub> & Target

Microbial Metabolite

Human Endogenous Metabolite

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## REFERENCES

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[1]. Ackman RG, et al. Birthweights in the Faroe Islands: possible role of isovaleric acid. J Intern Med. 1989 Feb;225(2):73-5.

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

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