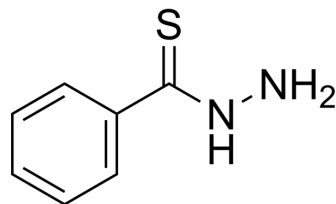


## Benzothiohydrazide

<b>Cat. No.:</b>	HY-129943	
<b>CAS No.:</b>	20605-40-7	
<b>Molecular Formula:</b>	C <sub>7</sub> H <sub>8</sub> N <sub>2</sub> S	
<b>Molecular Weight:</b>	152.22	
<b>Target:</b>	Bacterial	
<b>Pathway:</b>	Anti-infection	
<b>Storage:</b>	Powder	-20°C 3 years
	In solvent	-80°C 6 months
		-20°C 1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 50 mg/mL (328.47 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	6.5694 mL	32.8472 mL	65.6944 mL
5 mM	1.3139 mL	6.5694 mL	13.1389 mL
10 mM	0.6569 mL	3.2847 mL	6.5694 mL

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

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.5 mg/mL (16.42 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (16.42 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (16.42 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Benzothiohydrazide is an analogue of anti-tubercular agent Isoniazid. Benzothiohydrazide exhibits anti-tubercular activity, with MICs of 132 μM and 264 μM for *M. tuberculosis* wild type (H37Rv) and clinical mutant strains (IC<sub>1</sub> and IC<sub>2</sub>)<sup>[1]</sup>.

### REFERENCES

- [1]. J. Laborde, et al. Synthesis, oxidation potential and anti-mycobacterial activity of isoniazid and analogues: insights into the molecular isoniazid activation mechanism.

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

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