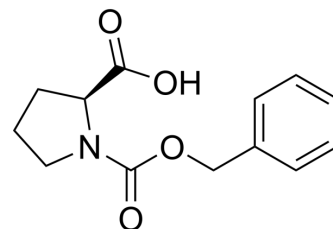


Carbobenzoxypoline

Cat. No.:	HY-Y0588
CAS No.:	1148-11-4
Molecular Formula:	C ₁₃ H ₁₅ NO ₄
Molecular Weight:	249.26
Target:	Others
Pathway:	Others
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 (401.19 mM; Need ultrasonic)					
	Preparing Stock Solutions	<div><div>Solvent</div><div>Concentration</div></div>	Mass	1 mg	5 mg	10 mg
		1 mM		4.0119 mL	20.0594 mL	40.1188 mL
		5 mM		0.8024 mL	4.0119 mL	8.0238 mL
		10 mM		0.4012 mL	2.0059 mL	4.0119 mL
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (10.03 mM); Clear solution					
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (10.03 mM); Clear solution					
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (10.03 mM); Clear solution					

BIOLOGICAL ACTIVITY

Description	Carbobenzoxypoline (L-Cbz-Proline) is an inhibitor of prolidase. Carbobenzoxypoline can be used for prolidase deficiency (PD) research ^[1] .
In Vitro	Carbobenzoxypoline (6 mM; 0-10 d; pH=6.0) causes mitochondrial depolarization and increases cellular death by 33% as reported for long-term culture of fibroblasts from prolidase deficiency (PD) patients ^[1] . Carbobenzoxypoline (0, 1, 3, 6 mM; 1 min; pH=6.0) results fibroblasts prolidase (FBP) hydrolysis, shows linear competitive inhibition ^[1] .

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

In Vivo

Carbobenzoxypoline (60 mg/kg; injection; once daily; 3 weeks) serves as in vivo inhibitor of erythrocytes prolidase in mice model^[1].

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Animal Model:	C57Bl/6J mice (4-week-old) ^[1]
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Dosage:	60 mg/kg
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Administration:	Injection; once daily for 3 weeks
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Result:	Resulted significant reduction of erythrocytes prolidase activity.
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REFERENCES

[1]. Lupi A, et al. N-benzyloxycarbonyl-L-proline: an in vitro and in vivo inhibitor of prolidase. Biochim Biophys Acta. 2005 Jun 30;1744(2):157-63.

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

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