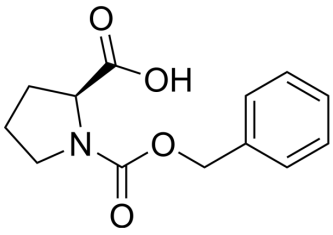
Carbobenzoxyproline

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	Solvent / Mass / Concentration	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

Carbobenzoxyproline (L-Cbz-Proline) is an inhibitor of prolidase. Carbobenzoxyproline can be used for prolidase deficiency (PD) research[1].

In Vitro

Carbobenzoxyproline (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].
Carbobenzoxyproline (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

Carbobenzoxyproline (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]
Dosage:	60 mg/kg
Administration:	Injection; once daily for 3 weeks
Result:	Resulted significant reduction of erythrocytes prolidase activity.

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.

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