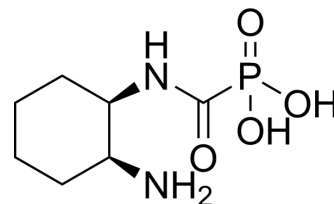


cis-ACCP

Cat. No.:	HY-131417
CAS No.:	777075-44-2
Molecular Formula:	C ₇ H ₁₅ N ₂ O ₄ P
Molecular Weight:	222.18
Target:	MMP
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	cis-ACCP is an orally active antimetastatic matrix metalloproteinase-2 (MMP-2) selective inhibitor. cis-ACCP can inhibit MMP-2 and MMP-9 with IC ₅₀ values of 4 μM and 20 μM, respectively. cis-ACCP can be used for the research of a variety of chronic diseases ^[1] .		
IC₅₀ & Target	MMP-2 4 μM (IC ₅₀)	MMP-9 20 μM (IC ₅₀)	
In Vitro	cis-ACCP can inhibit MMP-2 and MMP-9 with IC ₅₀ values of 4 μM and 20 μM, respectively ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.		
In Vivo	cis-ACCP (i.p.; 50, 250, 500 mg/kg; daily for two weeks) shows no toxic effects and reduces metastasis formation in mice ^[1] . cis-ACCP (oral, i.v., i.p.; 50, 150 mg/kg) only has distribution in the extracellular fluid ^[1] . Pharmacokinetic Parameters of cis-ACCP in rats ^[1] .		
	PK parameter	iv	PO
	AUC (min • μg/mL)	7637	79
	T _{1/2} (min)	18.8	126
	C _{max} (ng/mL)	306000	712
	CL (mL/min/kg)	6.9	-
	T _{max} (min)	-	17.4
	V _{ss} (mL/Kg)	186	-
	F (%)	-	0.35

Fu (%)	83.9	2.2	48
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Ttime over MIC (hr)	>4	>6	24
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MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	C57BL mice ^[1]
Dosage:	50, 250, 500 mg/kg; 12.5 to 50 mg/kg
Administration:	Oral, intraperitoneal, daily for two weeks; daily, 21 days
Result:	Showed no toxic effects and showed 50-85% inhibition of metastasis formation, depending on the dose.

Animal Model:	Rats ^[1]
Dosage:	50, 150 mg/kg
Administration:	Oral, intravenous, intraperitoneal
Result:	Showed 84% of the intravenously administered drug are excreted unchanged.

REFERENCES

[1]. Hoffman, Amnon et al. Carbamoylphosphonate matrix metalloproteinase inhibitors 6: cis-2-aminocyclohexylcarbamoylphosphonic acid, a novel orally active antimetastatic matrix metalloproteinase-2 selective inhibitor--synthesis and pharmacodynamic and pharmacokinetic analysis. Journal of medicinal chemistry vol. 51,5 (2008): 1406-14.

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

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