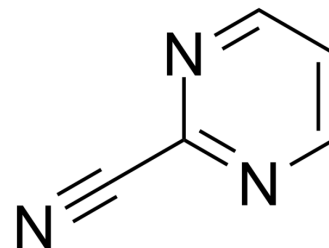


2-Cyanopyrimidine

Cat. No.:	HY-Y0241		
CAS No.:	14080-23-0		
Molecular Formula:	C ₅ H ₃ N ₃		
Molecular Weight:	105.1		
Target:	Cathepsin		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

H₂O : 25 mg/mL (237.87 mM; Need ultrasonic)
 DMSO : < 1 mg/mL (ultrasonic) (insoluble or slightly soluble)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	9.5147 mL	47.5737 mL	95.1475 mL
	5 mM	1.9029 mL	9.5147 mL	19.0295 mL
	10 mM	0.9515 mL	4.7574 mL	9.5147 mL

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

In Vivo

1. Add each solvent one by one: PBS
 Solubility: 5 mg/mL (47.57 mM); Clear solution; Need ultrasonic and warming and heat to 60°C

BIOLOGICAL ACTIVITY

Description

2-Cyanopyrimidine is a potent and non-selective cysteine protease cathepsin K inhibitor with an IC₅₀ of 170 nM. 2-Cyanopyrimidine is used for osteoporosis^[1].

IC₅₀ & Target

IC₅₀: 170 nM (cysteine protease cathepsin K)^[1]

In Vitro

2-Cyanopyrimidine is a 2-cyano-4-cyclohexylamino-pyrimidine derivative. Cathepsin K is a lysosomal cysteine protease^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

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

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