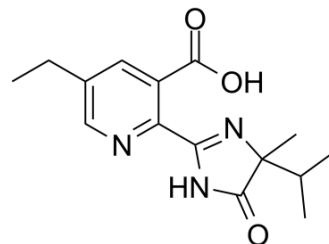


Imazethapyr

Cat. No.:	HY-133188		
CAS No.:	81335-77-5		
Molecular Formula:	C ₁₅ H ₁₉ N ₃ O ₃		
Molecular Weight:	289.33		
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 : 83.33 mg/mL (288.01 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	3.4563 mL	17.2813 mL	34.5626 mL
		5 mM	0.6913 mL	3.4563 mL	6.9125 mL
10 mM		0.3456 mL	1.7281 mL	3.4563 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (7.19 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (7.19 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (7.19 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	Imazethapyr is an imidazolinone herbicide used in crops. Imazethapyr can protect crops from damage by weeds and annual grasses ^{[1][2]} .
In Vitro	Imazethapyr belongs to the imidazolinones family of herbicides that are being extensively used in a wide range of cropping systems to enhance crop yields and protect crops from damage by weeds and annual grasses in soybean and peanut. Imazethapyr would affect the transcription of photosynthesis-related genes and inhibit the antioxidant system of the plants and affect the chlorophyll synthesis ^[2] .

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

REFERENCES

- [1]. Luca Carena, et al. Modelling the photochemistry of imazethapyr in rice paddy water. Sci Total Environ. 2018 Dec 10;644:1391-1398.
- [2]. Yanqiang Zhou, et al. Preparation of Imazethapyr Surface Molecularly Imprinted Polymers for Its Selective Recognition of Imazethapyr in Soil Samples. J Anal Methods Chem. 2018 Sep 30;2018:7535417.
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Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA