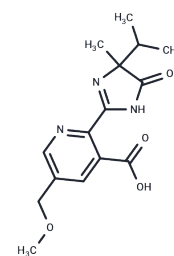


Imazamox

Chemical Properties

CAS No. :	114311-32-9
Formula:	C ₁₅ H ₁₉ N ₃ O ₄
Molecular Weight:	305.33
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	Imazamox ((±)-Imazamox) is a systemic herbicide with high selectivity, high activity, safety and broadspectrum activity. Imazamox inhibits the production of acetolactate synthase (ALS) in plants, which would then inhibit plant growth and ultimately lead to plant death.
Targets(IC50)	Others
In vitro	The half-life of Imazamox in the soil ranges from 1 to 3 months which shows low mammalian toxicity [1]. Imazamox is mainly accumulated in <i>V. sativa</i> , six-fold higher than those detected in <i>P.vulgaris</i> [3].
In vivo	Imazamox treatment reduces the size of the β -islet cells and also induces an elevation in serum glucose and calcium. Imazamox (12-36 mg/kg; i.p.; for 24-72 hours; male Sprague-Dawley rats) treatment causes toxic effects in the liver and pancreas of Sprague Dawley rats. In hepatocytes at the two highest doses, Necrotic and degenerative changes are detected [4].

Solubility Information

Solubility	DMSO: 45 mg/mL (147.38 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (6.55 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.2751 mL	16.3757 mL	32.7514 mL
5 mM	0.655 mL	3.2751 mL	6.5503 mL
10 mM	0.3275 mL	1.6376 mL	3.2751 mL
50 mM	0.0655 mL	0.3275 mL	0.655 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Wei J et al. Enantioselective Phytotoxicity of Imazamox Against Maize Seedlings. *Bull Environ Contam Toxicol*. 2016 Feb;96(2):242-7.

García-Garijo A, et al. Metabolic responses in root nodules of *Phaseolus vulgaris* and *Vicia sativa* exposed to the imazamox herbicide. *Pestic Biochem Physiol*. 2014 May;111:19-23.

Imazamox Chemical Fact Sheet. Wisconsin Department of Natural Resources. DNR PUB-WT-974 2012.

Sevim Ç, et al. An imazamox-based herbicide causes apoptotic changes in rat liver and pancreas. *Toxicol Rep*. 2018 Nov 19;6:42-50.

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