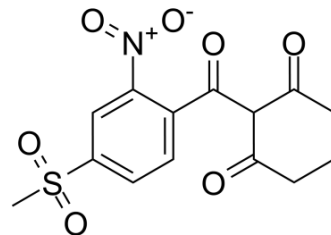


Mesotrione

Cat. No.:	HY-12853
CAS No.:	104206-82-8
Molecular Formula:	C ₁₄ H ₁₃ NO ₇ S
Molecular Weight:	339.32
Target:	Reactive Oxygen Species
Pathway:	Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Mesotrione is a herbicide belongs to the benzoylcyclohexanedione family. Mesotrione is a potent and competitive and reversible inhibitor of HPPD enzyme. Mesotrione is selective to maize due to rapid metabolism and relative high tolerance by the susceptible crop plant ^[1] .
IC₅₀ & Target	Target: HPPD enzyme ^[1]
In Vitro	Mesotrione is a potent HPPD enzyme inhibitor, giving an estimated K _i value in the range 6±18pM at 25°C. HPPD is from <i>Arabidopsis thaliana</i> (L) ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Mesotrione (oral administration; 1 mg/kg; single dose) is rapidly and extensively absorbed in rats and mice. After a single dose, the urinary excretion is estimated, the urinary excretion estimated absorption values ranged from 62.2% in males and 68.3% in females. The mean peak blood concentration (C _{max}) of radioactivity occurred 0.5 hours after dosing in each sex ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. G Mitchell, et al. Mesotrione: A New Selective Herbicide for Use in Maize. *Pest Manag Sci.* 2001 Feb; 57(2):120-8.
- [2]. CLH report. Proposal for Harmonised Classification and Labelling. Based on Regulation (EC) No 1272/2008 (CLP Regulation), Annex VI, Part 2. Substance Name: Mesotrione

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

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