Product Data Sheet

PPO-IN-10

 $\begin{array}{lll} \textbf{Cat. No.:} & \text{HY-161503} \\ \\ \textbf{CAS No.:} & 3034607\text{-}58\text{-}1 \\ \\ \textbf{Molecular Formula:} & C_{21}H_{19}Cl_2F_4N_3O_2 \\ \end{array}$

Molecular Weight: 492.29

Target: Protoporphyrinogen IX oxidase

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

BIOLOGICAL ACTIVITY

Description	PPO-IN-10 (Compound 4) is a 2-phenylpyridine derivative of pyrrolidone. PPO-IN-10 inhibits protoporphyrinogen IX oxidase (PPO). PPO-IN-10 leads to the formation of photosensitive protoporphyrin IX and the death of weed leaves. PPO-IN-10 can be used in the research of developing new PPO herbicides ^[1] .	
In Vivo	PPO-IN-10 (18.75 and 9.375 g ai/ha, Spray Administration) shows higher herbicidal activity at low doses but lower than the positive controls FLU and SAF ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. Animal Model: EC,DS,LP,AR,AT and MS	
	Dosage: Administration:	18.75 and 9.375 g ai/ha Spray Administration
	Result:	Compounds 4d, 4f, and 4l were better than that of the positive control ACI.

REFERENCES

[1]. Zhang M, Cai H, Pang C, et al. Design, Synthesis, and Herbicidal Evaluation of Pyrrolidinone-Containing 2-Phenylpyridine Derivatives as Novel Protoporphyrinogen Oxidase Inhibitors[J]. Journal of Agricultural and Food Chemistry, 2024.

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

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