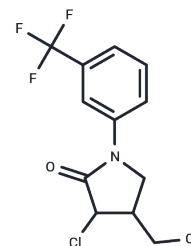


Flurochloridone

Chemical Properties

CAS No. :	61213-25-0
Formula:	C ₁₂ H ₁₀ Cl ₂ F ₃ NO
Molecular Weight:	312.12
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	Flurochloridone (R 40244) is a selective herbicide. Flurochloridone induces apoptosis and is regulated by mitochondrial dysfunction and oxidative stresses.
Targets(IC50)	Apoptosis,Bcl-2 Family,Reactive Oxygen Species
In vitro	Flurochloridone induced apoptosis in TM4 cells, accompanied by reactive oxygen species (ROS) accumulation, intracellular calcium increase, opening of mitochondrial permeability transition pore, depolarization of the mitochondrial membrane potential (MMP) and decrease of adenosine triphosphate (ATP) level. Pretreatment with ROS scavenger N-acetyl-L-cysteine (NAC), could significantly alleviate Flurochloridone-induced TM4 cells apoptosis and MMP depolarization[2].

Solubility Information

Solubility	DMSO: 60 mg/mL (192.23 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.2039 mL	16.0195 mL	32.039 mL
5 mM	0.6408 mL	3.2039 mL	6.4078 mL
10 mM	0.3204 mL	1.6019 mL	3.2039 mL
50 mM	0.0641 mL	0.3204 mL	0.6408 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

Nikoloff N, et al. Flurochloridone-based herbicides induced genotoxicity effects on *Rhinella arenarum* tadpoles (Anura: Bufonidae). *Ecotoxicol Environ Saf.* 2014 Feb;100:275-81.

Sun W, et al. Flurochloridone induces Sertoli cell apoptosis through ROS-dependent mitochondrial pathway. *Ecotoxicol Environ Saf.* 2021 Mar 31;216:112183.

Kaya A, Yigit E. The physiological and biochemical effects of salicylic acid on sunflowers (*Helianthus annuus*) exposed to flurochloridone. *Ecotoxicol Environ Saf.* 2014 Aug;106:232-8.

Nikoloff N, et al. Comparative evaluation in vitro of the herbicide flurochloridone by cytokinesis-block micronucleus cytome and comet assays. *Environ Toxicol.* 2014 Aug;29(8):884-92.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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