## Sulcotrione

## Chemical Properties

CAS No.: 99105-77-8
Formula: $\quad \mathrm{C} 14 \mathrm{H} 13 \mathrm{ClO} 5 \mathrm{~S}$
Molecular Weight: 328.77
Appearance: N/A


Storage: $\quad 0-4^{\circ} \mathrm{C}$ for short term (days to weeks), or $-20^{\circ} \mathrm{C}$ for long term (months).

## Biological Description

| Description | Sulcotrione is a $\beta$-triketone herbicide. It also can inhibit hydroxyphenylpyruvate dioxygenase. |
| :--- | :--- |
| Targets(IC50) | HPPD: None |
| In vitro | Sulcotrione behaves as time-independent reversible inhibitor. However it is the first time that such behavior is <br> observed using a purified hydroxyphenylpyruvate dioxygenase and a synthetic $\beta$-triketone, namely sulcotrione. <br> Inhibition kinetic analysis, performing with 3 hydroxyphenylpyruvate and sulcotrione concentrations, show that <br> the apparent KM increasing with sulcotrione concentration [1]. |

## Solubility Information

| Solubility | DMSO: $100 \mathrm{mg} / \mathrm{mL}(304.16 \mathrm{mM})$ <br> $(<1 \mathrm{mg} / \mathrm{ml}$ refers to the product slightly soluble or insoluble) |
| :--- | :--- |

Preparing Stock Solutions

|  | $\mathbf{1 m g}$ | $\mathbf{5 m g}$ | $\mathbf{1 0 m g}$ |
| :--- | :---: | :---: | :---: |
| 1 mM | 3.042 mL | 15.208 mL | 30.416 mL |
| 5 mM | 0.608 mL | 3.042 mL | 6.083 mL |
| 10 mM | 0.304 mL | 1.521 mL | 3.042 mL |
| 50 mM | 0.061 mL | 0.304 mL | 0.608 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - $80^{\circ} \mathrm{C}$ for 6 months; $-20^{\circ} \mathrm{C}$ for 1 month. Please use it as soon as possible.

## Reference

1. Rocaboy-Faquet $E$, et al. A novel amperometric biosensor for ?-triketone herbicides based on hydroxyphenylpyruvatedioxygenase inhibition: A case study for sulcotrione. Talanta. 2016;146:510-6.

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