Product Data Sheet

Product Name: Sulcotrione
Cat. No.: GC30532

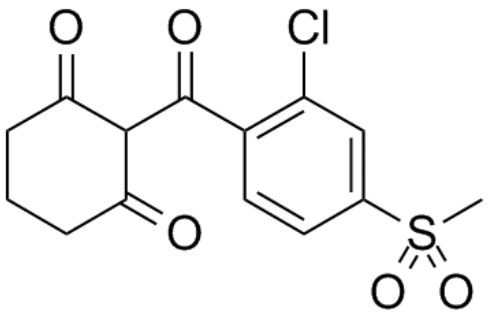
Chemical Properties

Cas. No.	99105-77-8		
SMILES	O=C(C1C(CCCC1=O)=O)C2=C(C=C(S(C)(=O)=O)C=C2)Cl		
Formula	$C_{14}H_{13}ClO_5S$	M.Wt	328.77
Solubility	DMSO : 100 mg/mL (304.16 mM)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		

Caution: Product has not been fully validated for medical applications. For research use only.
Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

Structure



Protocol

Kinase experiment: Electrochemical behavior of sulcotrione at 0.2 mg/L is characterized by cyclic voltammetry. Preliminary HPPD inhibition assays are performed by incubating the enzyme during time periods ranging from 2 to 10 min in presence of sulcotrione at differnt concentrations[1].

References:

[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.

Background

Product Data Sheet

Background

Sulcotrione is a β-triketone herbicide which can inhibit hydroxyphenylpyruvate dioxygenase (HPPD).

The results show that sulcotrione behaves as time-independent reversible inhibitor. Similar results are previously described for natural β-triketones, and for the synthetic β-triketone NTBC. However it is the first time that such behavior is observed using a purified hydroxyphenylpyruvate dioxygenase (HPPD) and a synthetic β-triketone, namely sulcotrione. Inhibition kinetic analysis, performing with 3 hydroxyphenylpyruvate (HPP) and sulcotrione concentrations, show that the apparent KM increasing with sulcotrione concentration. This behavior is consistent with the data present in the literature, describing sulcotrione as a competitive inhibitor of HPPD[1].

[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.

Caution: Product has not been fully validated for medical applications. For research use only.
Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA