

# **Product** Data Sheet

# **Ophthalmic acid**

Cat. No.: HY-126752

CAS No.: 495-27-2

Molecular Formula:  $C_{11}H_{19}N_3O_6$ Molecular Weight: 289.29

Target: Reactive Oxygen Species

Pathway: Immunology/Inflammation; Metabolic Enzyme/Protease; NF-кВ

Storage: -20°C, sealed storage, away from moisture

\* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

## **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 100 mg/mL (345.67 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	3.4567 mL	17.2837 mL	34.5674 mL
	5 mM	0.6913 mL	3.4567 mL	6.9135 mL
	10 mM	0.3457 mL	1.7284 mL	3.4567 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (8.64 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (8.64 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (8.64 mM); Clear solution

### **BIOLOGICAL ACTIVITY**

Description

Ophthalmic acid, an analogue of GSH, is a marker of oxidative stress and hepatic GSH consumption. Ophthalmic acid is an inhibitor of Glyoxalase I reaction  $^{[1][2]}$ .

#### **REFERENCES**

[1]. Gurnit Kaur, et al. Detection of Ophthalmic Acid in Serum from Acetaminophen-Induced Acute Liver Failure Patients Is More Frequent in Non-Survivors. PLoS One. 2015 Sep 25;10(9):e0139299.

2]. E E CLIFFE, et al. The mechanism of the glyoxalase I reaction, and the effect of ophthalmic acid as an inhibitor. Biochem J. 1961 Jun;79(3):475-82.	
Caution: Product has not been fully validated for medical applications. For research use only.	
Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com  Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA	

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