

Product Data Sheet

Product Name: Ophthalmic Acid

Cat. No.: GA23321

Chemical Properties

Cas. No. 495-27-2

Formula $C_{11}H_{19}N_3O_6$

M.Wt 289.29

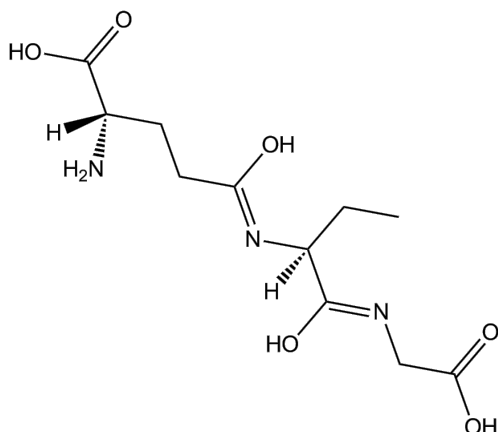
Solubility Soluble in DMSO

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.

Structure



Background

Ophthalmic Acid is an analog of glutathione (GSH) and a marker of oxidative stress and hepatic glutathione depletion. Ophthalmic Acid can inhibit the Glyoxalase I reaction and serve as a biomarker for oxidative stress, while also potentially acting as a neurotransmitter to affect motor control pathways^[1-2].

References:

[1] Kaur G, Leslie EM, Tillman H, 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.

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

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[2] CLIFFE EE, WALEY SG. The mechanism of the glyoxalase I reaction, and the effect of ophthalmic acid as an inhibitor. Biochem J. 1961 Jun;79(3):475-82.

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