Dimethyloxaloylglycine (DMOG)

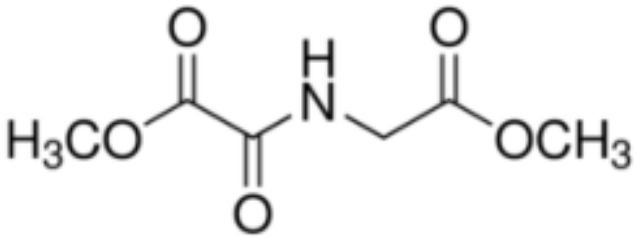
SIH-382-50MG

StressMarq Biosciences INC.
Discovery through partnership | Excellence through quality

Overview

Product Name	Dimethyloxaloylglycine (DMOG) Small Molecule
Unit Size	50mg
Description	Prolyl-4-hydroxylase inhibitor
Purity	>99%

Technical Data

Alternative Name(s)	DMOG, N-(Methoxyoxoacetyl)-glycine methyl ester
Formula	C6H9NO5
CAS#	89464-63-1
Molecular Weight	175.1
Chemical Structure	
Solubility	Soluble in DMSO (>25mg/ml), 100% ethanol (>25mg/ml) or dimethyl formamide, or PBS pH7.2 (10mg/ml)
Source	Synthetic
Appearance	Off-white solid
Storage Conditions	-20°C; 1 year+
Shipping Temperature	Shipped Ambient
SMILES	C(C(=O)OC)NC(C(=O)OC)=O
Research Area(s)	Cell Signaling

Biological Description

Function	DMOG is a cell permeable prolyl-4-hydroxylase inhibitor which upregulates HIF activity. HIF activation stimulates angiogenesis in several different models. DMOG also inhibits FIH (Factor Inhibiting HIF), an asparaginyl hydroxylase, which enhances the HIF response. It is active in vivo and attenuates myocardial injury in a rabbit ischemia reperfusion model (20mg/kg). Is expected to act pro-angiogenic. 1. Grozinger C.M., et al. (2001) J. Biol. Chem. 276(42): 38837-43. 2. Mai A., et al. (2005) J. Med. Chem. 48(24): 7789-95. 3. Kahyo T., et al. (2008) J. Pharmacol. Sci. 108(3): 364-71. 4. Jung-Hynes B., et al. (2009) J. Biol. Chem. 284(6): 3823-32.
Product Citations	PubMed ID: N/A

Material Safety Data Sheet

Dimethyloxaloylglycine (DMOG) SIH-382-50MG

This product is for *in vitro* research use only and is not intended for use in humans or animals

The below information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. StressMarq shall not be held liable for any damage resulting from handling or from contact with the above product. See the Technical Specification, Packing Slip, Invoice, and Product Catalogue for additional terms and conditions of sale.

Regulatory Information

Classification: Caution. Substance not yet fully tested.
Safety Phrases:
S22 - Do not breathe dust
S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection
S24/25 - Avoid contact with skin and eyes
Hazard Statements:
H302 - Harmful if swallowed

Physical Data

This product consists of powder, shipped at ambient temperatures. The physical properties of this product have not been investigated thoroughly. CAS Number: 89464-63-1

Fire and Explosion Hazard and Reactivity Data

NOT APPLICABLE

Toxicological Properties

May be harmful by inhalation, ingestion, or skin absorption. The toxicological properties of this product have not been investigated thoroughly. Exercise due caution.

Preventative Measures

Wear chemical safety goggles and compatible chemical-resistant gloves. Avoid inhalation, contact with eyes, skin or clothing.

Spill and Leak Procedures

Observe all federal, state and local environmental regulations.

- Wear protective equipment.
- Absorb on sand or vermiculite and place in closed containers for disposal.
- Dispose or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

First Aid Measures

- If swallowed, wash out mouth with water, provided person is conscious. Call a physician.
- In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. If a rash or other irritation develops, call a physician.
- If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.
- In case of eye contact, flush with copious amounts of water for at least 15 minutes while separating the eyelids with fingers. Call a physician.

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Created/Modified: 10-Sep-2014