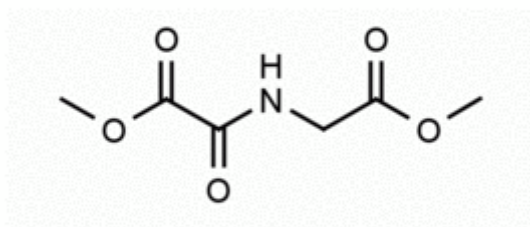


Product Name: Dimethyloxalyglycine

Catalog Number: D1070



Sizes Available: 100 mg, 500 mg, 1 g, and larger sizes available

Molecular weight: 175.14 g/mol

Molecular Formula: C₆H₉NO₅

CAS Number: 89464-63-1

Storage: Store at -20 °C, under dry conditions.

Synonyms: dimethyloxalyglycine, DMOG cpd, glycine, N-(carboxycarbonyl)-, N-(carboxycarbonyl)glycine, N-oxalyglycine, oxaloglycine, oxalyglycine

Field of Interest: Hypoxia inducer, Hypoxia Signaling, 2-OG-dependent dioxygenase inhibitor, HIF-alpha prolyl hydroxylase

Background: **Dimethyloxalyglycine** is a glycine diester derivative that plays a role in neuroprotection inhibiting HIF-alpha prolyl hydroxylase.^{1,2} It is known as a hypoxia-mimetic and is widely used to study oxygen adaptive responses in cells.^{3,4}

References:

- 1) King Hamish W, Michael Michael Z, Gleadle Jonathan M, Hypoxic enhancement of exosome release by breast cancer cells, BMC cancer (2012), 12421.
- 2) Eckle, Tobias, Koehler, David, Lehmann, Rainer, El Kasmi, Karim C., Eltzschig, Holger K., Hypoxia-Inducible Factor-1 is Central to Cardioprotection, Circulation (2008), 118(2), 166-175.
- 3) Chen, Haobin, Yan, Yan, Davidson, Todd L., Shinkai, Yoichi, Costa, Max, Hypoxic Stress Induces Dimethylated Histone H3 Lysine 9 through Histone Methyltransferase G9a in Mammalian Cells, Cancer Research (2006), 66(18), 9009-9016.,
- 4) Koditz Jens, Nesper Jutta, Wottawa Marieke, Stiehl Daniel P, Camenisch Gieri, Franke Corinna, Myllyharju Johanna, Wenger Roland H, Katschinski Dorthe M , Oxygen-dependent ATF-4 stability is mediated by the PHD3 oxygen sensor, Blood (2007), 110(10), 3610-7.

Hazardous Properties and Cautions: The toxicological and pharmacological properties of this compound are not fully known. For further information see the MSDS on request. **Dimethyloxalyglycine** is manufactured, shipped according to standard practices, and intended for research and development in a laboratory utilizing prudent procedures for handling chemicals of unknown toxicity, under the supervision of persons technically qualified to evaluate potential risks and authorized to enforce appropriate health and safety measures. As with all research chemicals, precautions should be taken to avoid unnecessary exposures or risks.

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