

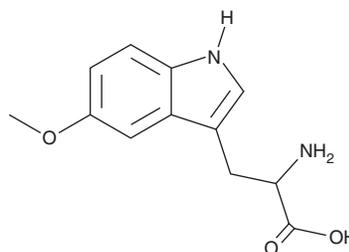
PRODUCT INFORMATION



5-methoxy-DL-Tryptophan

Item No. 31222

CAS Registry No.: 28052-84-8
Formal Name: 5-methoxy-tryptophan
Synonyms: DL-5-Methoxytryptophan, DL-5-MTP, 5-Methoxytryptophan
MF: C₁₂H₁₄N₂O₃
FW: 234.3
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

5-methoxy-DL-Tryptophan (DL-5-MTP) is supplied as a crystalline solid. A stock solution may be made by dissolving the DL-5-MTP in the solvent of choice, which should be purged with an inert gas. DL-5-MTP is soluble in the organic solvent DMSO at a concentration of approximately 1 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of DL-5-MTP can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of DL-5-MTP in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

DL-5-MTP is an active metabolite of tryptophan with anti-inflammatory and anticancer activities.^{1,2} It reduces LPS-induced expression of COX-2, TNF- α , IL-1 β , and IL-6 in RAW 264.7 macrophages when used at a concentration of 50 mM.² DL-5-MTP (23.4 mg/kg) increases survival in a mouse model of LPS-induced endotoxemia and a mouse model of sepsis induced by cecal ligation and puncture. It also reduces tumor growth and the number of metastases in an A549 mouse xenograft model when administered at a dose of 100 mg/kg.¹

References

1. Chen, H.-L., Yuan, C.-Y., Cheng, H.-H., *et al.* Restoration of hydroxyindole O-methyltransferase levels in human cancer cells induces a tryptophan-metabolic switch and attenuates cancer progression. *J. Biol. Chem.* **293**(28), 11131-11142 (2018).
2. Wang, Y.-F., Hsu, Y.-J., Wu, H.-F., *et al.* Endothelium-derived 5-methoxytryptophan is a circulating anti-inflammatory molecule that blocks systemic inflammation. *Circ. Res.* **119**(2), 222-236 (2016).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/09/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM