

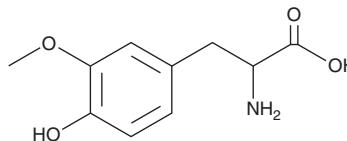
PRODUCT INFORMATION



3-Methoxytyrosine

Item No. 36443

CAS Registry No.: 7636-26-2
Formal Name: 3-methoxy-tyrosine
Synonyms: DL-3-O-Methyldopa, NSC 122476,
3-methoxy-DL-Tyrosine
MF: C₁₀H₁₃NO₄
FW: 211.2
Purity: ≥95%
Supplied as: A 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

3-Methoxytyrosine is supplied as a solid. A stock solution may be made by dissolving the 3-methoxytyrosine in the solvent of choice, which should be purged with an inert gas. 3-Methoxytyrosine is slightly soluble in ethanol, DMSO, dimethyl formamide, chloroform, acetonitrile, and water.

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 3-methoxytyrosine can be prepared by directly dissolving the solid in aqueous buffers. 3-Methoxytyrosine is slightly soluble in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

3-Methoxytyrosine is an active metabolite of L-DOPA (Item No. 13248).¹ It is formed from L-DOPA via O-methylation by catechol-O-methyltransferase (COMT). 3-Methoxytyrosine (10 and 100 μM) inhibits L-DOPA-induced neuroprotection in primary rat mesencephalic dopaminergic neurons.²

References

1. Miller, J.W., Shukitt-Hale, B., Villalobos-Molina, R., *et al.* Effect of L-Dopa and the catechol-O-methyltransferase inhibitor Ro 41-0960 on sulfur amino acid metabolites in rats. *Clin. Neuropharmacol.* **20(1)**, 55-66 (1997).
2. Asanuma, M. and Miyazaki, I. 3-O-Methyldopa inhibits astrocyte-mediated dopaminergic neuroprotective effects of L-DOPA. *BMC Neurosci.* **17(1)**, 52 (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.

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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