

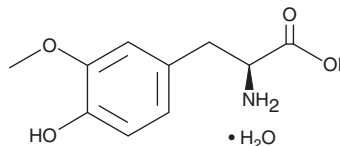
PRODUCT INFORMATION



3-O-methyl-L-DOPA (hydrate)

Item No. 20737

CAS Registry No.: 200630-46-2
Formal Name: 3-methoxy-L-tyrosine, monohydrate
MF: $C_{10}H_{13}NO_4 \cdot H_2O$
FW: 229.2
Purity: $\geq 98\%$
UV/Vis.: λ_{max} : 278 nm
Supplied as: A crystalline solid
Storage: $-20^{\circ}C$
Stability: ≥ 4 years



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

Laboratory Procedures

3-O-methyl-L-DOPA (hydrate) is supplied as a crystalline solid. A stock solution may be made by dissolving the 3-O-methyl-L-DOPA (hydrate) in the solvent of choice, which should be purged with an inert gas. 3-O-methyl-L-DOPA (hydrate) is soluble in the organic solvent DMSO. The solubility of 3-O-methyl-L-DOPA (hydrate) in DMSO is approximately 1 mg/ml.

3-O-methyl-L-DOPA (hydrate) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 3-O-methyl-L-DOPA (hydrate) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. 3-O-methyl-L-DOPA (hydrate) has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

3-O-methyl-L-DOPA 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-O-methyl-L-DOPA (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.

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, 09/12/2023

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