

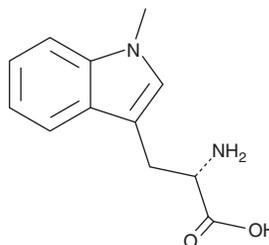
PRODUCT INFORMATION



1-methyl-L-Tryptophan

Item No. 33313

CAS Registry No.: 21339-55-9
Synonyms: NSC 77678, L-1-Methyltryptophan, 1-L-MT, L-1MT
MF: C₁₂H₁₄N₂O₂
FW: 218.3
Purity: ≥98%
UV/Vis.: λ_{max}: 223 nm
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

1-methyl-L-Tryptophan is supplied as a solid. A stock solution may be made by dissolving the 1-methyl-L-tryptophan in the solvent of choice, which should be purged with an inert gas. 1-methyl-L-Tryptophan is soluble in aqueous acid at a concentration of approximately 10 mg/ml.

Description

1-methyl-L-Tryptophan is an inhibitor of indoleamine 2,3-dioxygenase (IDO; K_i = 19 μM).¹ It inhibits kynurenine production from primary human monocyte-derived IDO-positive dendritic cells and increases T cell proliferation in an allogeneic mixed lymphocyte reaction (allo-MLR) when used at a concentration of 100 μM. 1-methyl-L-Tryptophan reverses depressive-like behavior in mice in a Bacillus Calmette-Guerin inflammation-induced model of depression.² Unlike 1-methyl-D-tryptophan, 1-methyl-L-tryptophan does not have an additive effect on survival induced by cyclophosphamide (Item No. 13849) in an orthotopic murine mammary carcinoma model of 4T1 tumors when administered at a dose of 400 mg/kg twice per day.¹

References

1. Hou, D.-Y., Muller, A.J., Sharma, M.D., *et al.* Inhibition of indoleamine 2,3-dioxygenase in dendritic cells by stereoisomers of 1-methyl-tryptophan correlates with antitumor responses. *Cancer Res.* **67(2)**, 792-801 (2007).
2. Rana, P., Sharma, A.K., Jain, S., *et al.* Comparison of fluoxetine and 1-methyl-L-tryptophan in treatment of depression-like illness in Bacillus Calmette-Guerin-induced inflammatory model of depression in mice. *J. Basic Clin. Physiol. Pharmacol.* **27(6)**, 569-576 (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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