

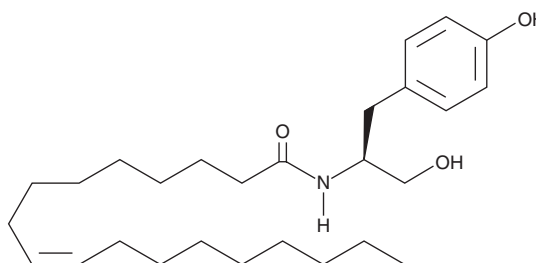
PRODUCT INFORMATION



OMDM-1

Item No. 10171

CAS Registry No.: 616884-62-9
Formal Name: (S)-N-(1-(4-hydroxyphenyl)-2-hydroxyethyl)oleamide
Synonym: (S)-N-oleoyl Tyrosinol
MF: C₂₇H₄₅NO₃
FW: 431.7
Purity: ≥98%
UV/Vis.: λ_{max}: 225, 279 nm
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

OMDM-1 is supplied as a crystalline solid. A stock solution may be made by dissolving the OMDM-1 in the solvent of choice, which should be purged with an inert gas. OMDM-1 is soluble in organic solvents such as ethanol and dimethyl formamide. The solubility of OMDM-1 in these solvents is approximately 30 mg/ml. OMDM-1 is also miscible in DMSO.

OMDM-1 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, OMDM-1 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. OMDM-1 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Numerous analogs of arachidonoyl ethanolamide (AEA, anandamide; Item No. 90050) potentiate its biological activity.¹ This potentiation is ascribed either to inhibition of AEA reuptake into neurons or inhibition of fatty acid amide hydrolase (FAAH) within the neurons.² OMDM-1 is an endocannabinoid analog specifically designed to be a potent and selective inhibitor of the cellular uptake of AEA.³ Structurally, OMDM-1 is the amide of (S)-tyrosinol with oleic acid (Item No. 90260). In RBL-2H3 cells, OMDM-1 inhibits the cellular uptake of tritiated AEA with an IC₅₀ of 2.4 μM, with negligible effects on the CB₁ receptor and VR1.³

References

1. Khanolkar, A.D. and Makriyannis, A. Structure-activity relationships of anandamide, an endogenous cannabinoid ligand. *Life Sci.* **65(6-7)**, 607-616 (1999).
2. Deutsch, D.G., Glaser, S.T., Howell, J.M., et al. The cellular uptake of anandamide is coupled to its breakdown by fatty-acid amide hydrolase. *J. Biol. Chem.* **276(10)**, 6967-6973 (2001).
3. Ortar, G., Ligresti, A., De Petrocellis, L., et al. Novel selective and metabolically stable inhibitors of anandamide cellular uptake. *Biochem. Pharmacol.* **65(9)**, 1473-1481 (2003).

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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