

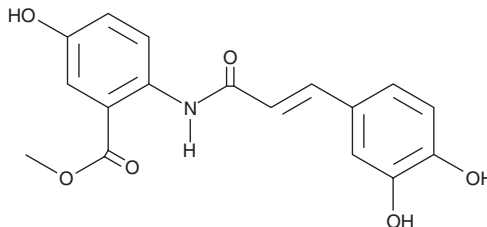
PRODUCT INFORMATION



Avenanthramide-C methyl ester

Item No. 10011336

CAS Registry No.: 955382-52-2
Formal Name: 2-[[[(2E)-3-(3,4-dihydroxyphenyl)-1-oxo-2-propen-1-yl]amino]5-hydroxybenzoic acid, methyl ester
MF: C₁₇H₁₅NO₆
FW: 329.3
Purity: ≥90%
UV/Vis.: λ_{max}: 224, 348, 356 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

Avenanthramide-C methyl ester is supplied as a crystalline solid. A stock solution may be made by dissolving the avenanthramide-C methyl ester in the solvent of choice, which should be purged with an inert gas. Avenanthramide-C methyl ester is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of avenanthramide-C methyl ester in ethanol is approximately 10 mg/ml and approximately 20 mg/ml in DMSO and DMF.

Avenanthramide-C methyl ester is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, avenanthramide-C methyl ester should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Avenanthramide-C methyl ester 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

Avenanthramide-C methyl ester is an inhibitor of NF-κB activation that acts by blocking the phosphorylation of IKK and IκB (IC₅₀ ~ 40 μM).¹ Through this mechanism, avenanthramide-C methyl ester dose dependently inhibits the expression and secretion of IL-6, IL-8, and MCP-1 in human aortic endothelial cells.¹

References

1. Guo, W., Wise, M.L., Collins, F.W., *et al.* Avenanthramides, polyphenols from oats, inhibit IL-1β-induced NF-κB activation in endothelial cells. *Free Radic. Biol. Med.* **44**(3), 415-429 (2008).

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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