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ProductInformation

Muristerone A

Product Number **M 7888**
Storage Temperature -0 °C

Product Description
Molecular Formula: $C_{27}H_{44}O_8$
Molecular Weight: 496.6
CAS Number: 38778-30-2
Melting Point: 238-240 °C
Specific Rotation: +49.6° (10 mg/ml, pyridine, 20 °C)
Synonyms: 2β,3β,5β,11α,14α,20R,22R-heptahydroxycholest-7-en-6-one; MurA

Muristerone A (MurA) is a phytoecdysone compound that occurs naturally in the kaladana plant *Ipomoea calonyction* Hallier f. sp. nova.[1,2] MurA has been shown to participate in insect development through the mediation of nuclear hormone receptors, Utraspiracle and the ecdysone receptor.[3] In particular, MurA to causes Ultraspiracle to form a heterodimer which complexes with the ecdysone receptor.[4]

MurA has been used to induce expression of genes in ecdysone-inducible system expression vectors, without detrimental effects in mammalian cell cultures and in transgenic mice.[5,6] MurA has also been utilized to induce gene expression in a chimeric ecdysone receptor system in monocotyledonous plant cells.[7] The use of MurA to induce nerve growth factor release in genetically engineered dermal fibroblasts that contain an ecdysone-inducible system has been described.[8]

Precautions and Disclaimer
For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions
This product is soluble in pyridine (10 mg/ml), yielding a clear, colorless to faint yellow solution. It is also soluble in methanol (1 mg/ml) and ethanol (0.5 mg/ml).[9]

References
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4. Vögtli, M., et al., High level transactivation by the ecdysone receptor complex at the core recognition motif. Nucleic Acids Res., **26(10)**, 2407-2414 (1998).
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7. Martinez, A., et al., Creation of ecdysone receptor chimeras in plants for controlled regulation of gene expression. Mol. Gen. Genet., **261(3)**, 546-552 (1999).
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9. Christopherson, K. S., et al., Ecdysteroid-dependent regulation of genes in mammalian cells by a *Drosophila* ecdysone receptor and chimeric transactivators. Proc. Natl. Acad. Sci. USA, **89(14)**, 6314-6318 (1992).