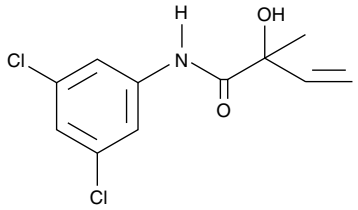
Product Information

Vinclozolin M2

Item No. 10007452

CAS Registry No.: 83792-61-4
Formal Name: N-(3,5-dichlorophenyl)-2-hydroxy-2-methyl-3-butenamide
Synonym: M2
MF: $C_{11}H_{11}Cl_2NO_2$
FW: 260.1
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 216, 249 nm



Laboratory Procedures

For long term storage, we suggest that vinclozolin M2 (M2) be stored as supplied at -20°C. It should be stable for at least two years.

M2 is supplied as a crystalline solid. A stock solution may be made by dissolving the M2 in an organic solvent purged with an inert gas. M2 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of M2 in these solvents is at least 30 mg/ml.

M2 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, M2 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. M2 has a solubility of 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Vinclozolin is a dicarboximide fungicide widely used in Europe and the United States for control of diseases caused by *B. cinerea*, *S. sclerotiorum,* and *Monilinia* species in grapes, fruits, vegetables, ornamental plants, and turfgrass.[1] Metabolites of vinclozolin, M1 and M2, are effective antagonists of the androgen receptor in rats exhibiting K_i values of 92 and 9.7 µM respectively.[2] In fathead minnow, M1 and M2 failed to compete for high-affinity, low capacity testosterone binding sites in brain and ovary cytosolic fractions suggesting that they are not anti-androgens in this species.[3]

References

1. Pothuluri, J.V., Freeman, J.P., Heinze, T.M., *et al.* Biotransformation of vinclozolin by the fungus *Cunninghemella elegans*. *J. Agric. Food Chem.* **48**, 6138-6148 (2000).
2. Kelce, W.R., Monosson, E., Gamcsik, M.P., *et al.* Enviromental hormone disruptors: Evidence that vinclozolin developmental toxicity is mediated by antiandrogenic metabolites. *Toxicol. Appl. Pharmacol.* **126**, 276-285 (1994).
3. Makynen, E.A., Kahl, M.D., Jensen, K.M., *et al.* Effects of the mammalian antiandrogen vinclozolin on development and reproduction of the fathead minnow. *Aquatic Toxicology* **48**, 461-475 (2000).

Related Products

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