

Product Data Sheet

Product Name: DM4 (hydrate)

Cat. No.: GC49164

Chemical Properties

Cas. No. N/A

SMILES C[C@]12[C@@]([C@@H]([C@]3([H])C[C@]([C@@H](/C=C/C=C(CC4=CC(N(C(C[C@@H]2OC([C@H](C)N(C)C(CCC(C)(S)C)=O)=O)=O)C)=C(Cl)C(OC)=C4)\C)OC)(NC(O3)=O)O)C)([H])O1.O

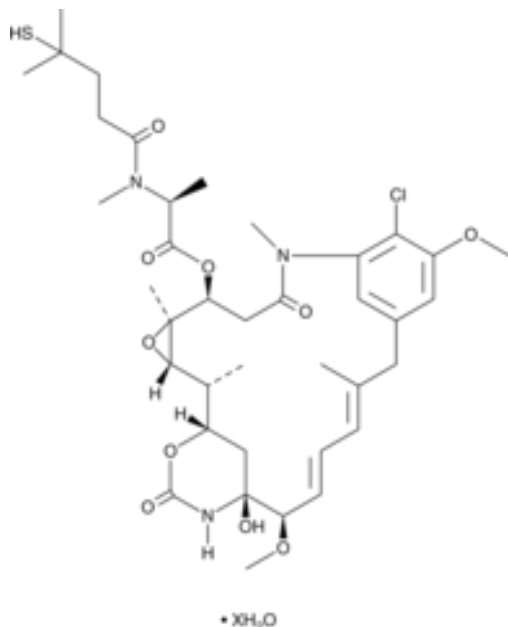
Formula C₃₈H₅₄ClN₃O₁₀S·XH₂O M.Wt 780.4

Solubility DMF: 30 mg/ml, DMSO: 30 mg/ml, Ethanol: 20 mg/ml Storage -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

DM4 is a thiol-containing derivative of the tubulin polymerization inhibitor maytansine.^{1,2} It is

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cytotoxic to SK-BR-3 cells ($IC_{50} = 3.3 \text{ nM}$).¹ DM4, conjugated to a humanized CD205-targeting monoclonal antibody, is selectively cytotoxic to a variety of CD205-expressing human cancer cells ($EC_{50}s = 0.1\text{-}1.32 \text{ nM}$) over non-CD205-expressing cells ($EC_{50}s = 14.2\text{-}22.66 \text{ nM}$) and reduces tumor growth in various mouse xenograft and patient-derived (PDX) cancer models.³

1.Widdison, W.C., Wilhelm, S.D., Cavanagh, E.E., et al.Semisynthetic maytansine analogues for the targeted treatment of cancerJ. Med Chem.49(14)4392-4408(2006) 2.Remillard, S., Rebhun, L.I., Howie, G.A., et al.Antimitotic activity of the potent tumor inhibitor maytansineScience189(4207)1002-1005(1975) 3.Merlino, G., Fiascarelli, A., Bigioni, M., et al.MEN1309/OBT076, a first-in-class antibody-drug conjugate targeting CD205 in solid tumorsMol. Cancer Ther.18(9)1533-1543(2019)

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