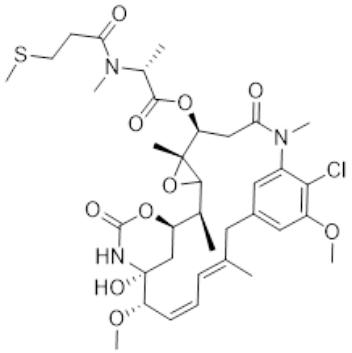
CellMosaic, Inc.
10A Roessler Road
Woburn, MA 01801, USA
Phone: 781-463-0002; Fax: 781-998-4694; E-mail: info@cellmosaic.com

S-Methyl DM1 (S-Methyl Mertansine) Standard
10 mM DMSO Solution, ≥98% pure by HPLC



Product Number: **CM11016**
CAS Registration Number: 912569-84-7
MW: 752.32 Da
Chemical Formula: $C_{36}H_{50}ClN_3O_{10}S$

Product Description

S-methyl DM1 is the primary cellular or liver metabolite of ADC or other conjugates prepared with DM1. DM1 (mertansine) is a thiol-containing derivative of maytansine. It binds to tubulin and inhibits the assembly of microtubules. DM1 is used to prepare antibody-drug conjugates, such as trastuzumab emtansine (abbreviated as T-DM1). DM1 is not very stable in aqueous solution and can be oxidized or dimerized. CellMosaic's S-methyl DM1 is a high purity product that can serve as a standard for HPLC and LC-MS/MS analysis. The product is formulated in DMSO solution, quantified by UV/HPLC using DM1 as standard/calibrator at 252 nm, and ready to use after dilution. Although S-methyl DM1 inhibits polymerization weaker than DM1, it can also be used as a stable control for the ADC studies instead of DM1.

Application

- As a standard for HPLC and LC-MS/MS analysis of the metabolite.
- As a control for ADC studies.

Key Features

- Formulated as 10 mM solution in DMSO and ready to use after dilution.
- Concentration is determined by UV/HPLC using DM1 as standard/calibrator at 252 nm.

References

1) Lopus M. *et al*. (**2010**). Maytansine and Cellular Metabolites of Antibody-Maytansinoid Conjugates Strongly Suppress Microtubule Dynamics by Binding to Microtubules. Mol. Cancer. Ther. 9(1), 2689-2699.
2) Oroudjev E. *et al*. (**2010**). Maytansinoid-Antibody Conjugates Induce Mitotic Arrest by Suppressing Microtubule Dynamic Instability. *Mol. Cancer Ther.* 9(10), 2700-2713.
3) Davis J.A. *et al.* (**2012**) In Vitro Characterization of the Drug-Drug Interaction Potential of Catabolites of Antibody-Maytansinoid Conjugates. *Drug Metabolism and Disposition* 40(10), 1927-1934.