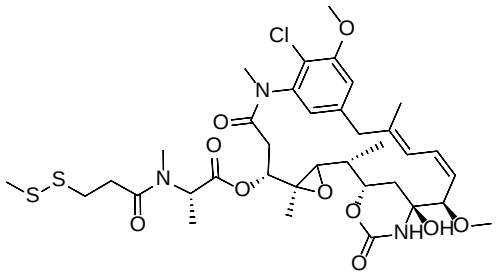
Product data sheet

MedKoo Cat#: 407263 Name: DM1-SMe CAS#: 138148-68-2 Chemical Formula: $C_{36}H_{50}ClN_3O_{10}S_2$ Exact Mass: 783.2626 Molecular Weight: 784.38	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years.
	In solvent: -80°C 3 months; -20°C 2 weeks.

1. Product description:
DM1-SMe is a potent maytansinoid microtubular inhibitor and an unconjugated DM1 as a mixed disulfide with thiomethane to cap its sulfhydryl group. DM1-SMe can be readily conjugate to the SH group of an antibody to form antibody-drug conjugate (ADC).

2. CoA, QC data, SDS, and handling instruction
SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	12.0	15.30
DMF	16.0	20.40
DMF:PBS (pH 7.2) (1:5)	0.16	0.20

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	**1 mg**	**5 mg**	**10 mg**
1 mM	1.27 mL	6.37 mL	12.75 mL
5 mM	0.25 mL	1.27 mL	2.55 mL
10 mM	0.13 mL	0.64 mL	1.27 mL
50 mM	0.03 mL	0.13 mL	0.25 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator
Please refer the product web page under section of "Calculator"

6. Recommended literature which reported protocols for in vitro and in vivo study
In vitro study

1. Wood AC, Maris JM, Gorlick R, Kolb EA, Keir ST, Reynolds CP, Kang MH, Wu J, Kurmasheva RT, Whiteman K, Houghton PJ, Smith MA. Initial testing (Stage 1) of the antibody-maytansinoid conjugate, IMGN901 (Lorvotuzumab mertansine), by the pediatric preclinical testing program. Pediatr Blood Cancer. 2013 Nov;60(11):1860-7. doi: 10.1002/pbc.24647. Epub 2013 Jun 24. PMID: 23798344; PMCID: PMC4260400.

In vivo study

TBD

7. Bioactivity
Biological target: DM1-SMe is a maytansinoid microtubular inhibitor.

In vitro activity

DM1-SMe was tested against the PPTP's (pediatric preclinical testing program) in vitro cell line panel at concentrations ranging from 0.01 nM to 0.1 μM and 0.3 pM to 3 nM, respectively, using the PPTP's standard 96 hour exposure period. The median rIC50 for DM1-

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SMe was 0.06 nM, respectively (Table I). The neuroblastoma panel showed significantly higher rIC50 values compared to non-neuroblastoma cell lines for DM1-SMe (2.5 nM and 0.039 nM, respectively).

Reference: Pediatr Blood Cancer. 2013 Nov;60(11):1860-7. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4260400/

In vivo activity

TBD

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.