

PRODUCT INFORMATION



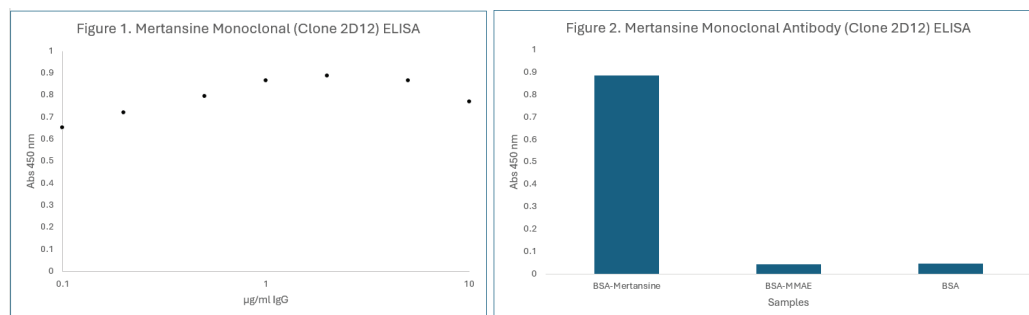
Mertansine Monoclonal Antibody (Clone 2D12)

Item No. 44707

Overview and Properties

Contents:	This vial contains 100 µg of protein G-purified monoclonal antibody
Synonyms:	DM1, Drug Maytansinoid 1, Emtansine
Immunogen:	Mertansine-KLH
Cross Reactivity:	(+) Mertansine; (-) MMAE
Species Reactivity:	Independent
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide
Clone:	2D12
Host:	Mouse
Isotype:	IgG1 λ
Applications:	ELISA and Western blot (WB); the recommended starting dilution for ELISA and WB is 1:500 (2 µg/ml). Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



Mertansine Monoclonal Antibody (Clone 2D12) (Item No. 44707) detected mertansine-BSA conjugate but not MMAE-BSA or albumin alone by ELISA using serially diluted IgG in Figure 1, or IgG at 2 µg/ml as shown in Figure 2.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 01/12/2026

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

PRODUCT INFORMATION



Description

Mertansine is a semisynthetic maytansinoid antimitotic agent.^{1,2} It disrupts mitotic spindle formation and induces cell cycle arrest and cell death in cancer cells *in vitro*. Mertansine has commonly been used as a payload in antibody-drug conjugates (ADCs), which have been used to selectively target and destroy cancer cells *in vitro* and *in vivo*.³⁻⁵ Formulations containing mertansine conjugated to ado-trastuzumab have been used in the treatment of HER2⁺ breast cancer. Cayman's Mertansine Monoclonal Antibody (Clone 2D12) can be used for ELISA and Western blot applications.

References

1. Widdison, W.C., Wilhelm, S.D., Cavanagh, E.E., *et al.* Semisynthetic maytansine analogues for the targeted treatment of cancer. *J. Med. Chem.* **49**(14), 4392-4408 (2006).
2. Lopus, M. Antibody-DM1 conjugates as cancer therapeutics. *Cancer Lett.* **307**(2), 113-115 (2011).
3. Berdeja, J.G. Lorvotuzumab mertansine: Antibody-drug-conjugate for CD56⁺ multiple myeloma. *Front. Biosci.* **19**(1), 163-170 (2014).
4. Mckertish, C.M. and Kayser, V. A novel dual-payload ADC for the treatment of HER2⁺ breast and colon cancer. *Pharmaceutics* **15**(8), 2020 (2023).
5. Huhe, M., Lou, J., Zhu, Y., *et al.* A novel antibody-drug conjugate, HcHAb18-DM1, has potent anti-tumor activity against human non-small cell lung cancer. *Biochem. Biophys. Res. Commun.* **513**(4), 1083-1091 (2019).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM