Cantuzumab mertansine

Cat. No.:	HY-P99492
CAS No.:	400010-39-1
Target:	Microtubule/Tubulin; Antibody-Drug Conjugates (ADCs)
Pathway:	Cell Cycle/DNA Damage; Cytoskeleton; Antibody-drug Conjugate/ADC Related
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description

Cantuzumab mertansine (SB-408075; huC242-DM1), an ADC, is an immunoconjugate of the potent maytansine derivative (DM1; HY-19792) and the humanized monoclonal antibody (huC242) directed to CanAg. Cantuzumab mertansine has cytotoxic toward colon cancer cells and has broad antitumor efficacy against a range of CanAg-positive human tumor xenografts[1][2].

In Vitro

Cantuzumab mertansine (SB-408075; huC242-DM1; 0-100 μM; 24 h) has selective cytotoxic activity on antigen-positive COLO 205 cell line[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Cytotoxicity Assay[1]

Cell Line:	Antigen-positive COLO 205 cell line and the antigen-negative A-375 melanoma cell line
Concentration:	0-100 μM
Incubation Time:	24 h
Result:	Had cytotoxic activity on COLO 205 cells with an IC_{50} value of 0.032 nM (23.5 pg/ml). Had 1100-fold less cytotoxic activity for the antigen-negative A-375 cells (IC_{50}=36 nM; 26.5 ng/ml).

In Vivo

Cantuzumab mertansine (SB-408075; huC242-DM1; 300 μg/kg/day for 5 days) resultes in complete regressions and cures of mice bearing human xenografts of COLO 205 colon cancer[1].

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Animal Model:	Female CB-17 SCID mice, 6-7 weeks of age bearing COLO 205 human colon tumor xenografts[1]
Dosage:	300 μg/kg
Administration:	Daily for 5 days
Result:	Completely eliminated any measurable tumors within 2 weeks of the initiation of therapy, and all eight animals were tumor-free for 200 days (duration of the experiment).

REFERENCES

[1]. Paul R Helft, et al. A phase I study of cantuzumab mertansine administered as a single intravenous infusion once weekly in patients with advanced solid tumors. Clin Cancer Res. 2004 Jul 1;10(13):4363-8.

[2]. Anthony W. Tolcher, et al. Cantuzumab Mertansine, a Maytansinoid Immunoconjugate Directed to the CanAg Antigen: A Phase I, Pharmacokinetic, and Biologic Correlative Study. J Clin Oncol. 2003 Jan 15;21(2):211-22.

Caution: Product has not been fully validated for medical applications. For research use only.

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