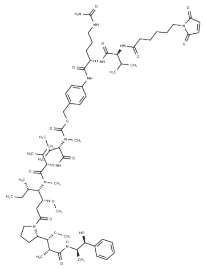
Data Sheet (Cat.No.T4232)

TargetMol

VCMMAE

Chemical Properties



CAS No. : 646502-53-6

Formula: C68H105N11O15

Molecular Weight: 1316.63

Appearance: no data available

Storage: store at low temperature,keep away from moisture
Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	VCMMAE (mc-vc-PAB-MMAE) is a drug-linker conjugate for ADC with potent antitumor activity.
Targets(IC50)	Microtubule Associated,Drug-Linker Conjugates for ADC
In vitro	MMAE sensitized colorectal and pancreatic cancer cells to IR in a schedule and dose dependent manner correlating with mitotic arrest. Monomethyl auristatin E (MMAE) is efficiently released from SGN-35 within CD30+ cancer cells and, owing to its membrane permeability, it has the ability to exert cytotoxic activity on bystander cells. Radiosensitization is evidenced by decreased clonogenic survival and increased DNA double strand breaks in irradiated cells.
In vivo	Monomethyl auristatin E (MMAE), when combined with IR, enhances DNA damage signaling and CHK1 activation, delaying tumor growth. Tumor-targeted ACPP-cRGD-MMAE with IR induces more robust and significantly prolonged tumor regression in xenograft models.
Cell Research	Monomethyl auristatin E is reconstituted in DMSO at a concentration of 5 nM. Monomethyl auristatin E (MMAE, 5 nM) and ionizing radiation (IR) treated cells are harvested and lysed in RIPA buffer with protease and phosphatase inhibitors. 30 μg of lysate undergo electrophoresis using 4-12% Bis-Tris gels, transferred to PVDF membranes and incubated with indicated primary antibodies.
Animal Research	6-8 week old female athymic nu/nu mice are injected subcutaneously into thighs with 5×106 HCT-116 or PANC-1 cells in a 1:1 Matrigel and PBS solution. Mice are treated with IR or intravenous (IV) injection of ACPP-cRGD-MMAE (6 nmoles/day, 18 nmoles total, i.v.), tumor tissue is harvested, formalin fixed and paraffin embedded followed by staining with indicated antibodies. The primary antibody is used at a 1:250 dilution and is visualized using DAB as a chromagen with the UltraMap system.

Solubility Information

Solubility	DMSO: 54 mg/mL (41.01 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.7595 mL	3.7976 mL	7.5951 mL
5 mM	0.1519 mL	0.7595 mL	1.519 mL
10 mM	0.076 mL	0.3798 mL	0.7595 mL
50 mM	0.0152 mL	0.076 mL	0.1519 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Okeley, et al. Intracellular Activation of SGN-35, a Potent Anti-CD30 Antibody-Drug Conjugate. Clinicalal Cancer Research (2010), 16(3), 888-897.
Lisa Buckel, et al. Tumor radiosensitization by monomethyl auristatin E: mechanism of action and targeted delivery. Cancer Res. 2015 Apr 1;75(7):1376-87.
Jianmin Fang, et al. Anti-her2 antibody and conjugate thereof. US 20160304621 A1.