

DM4 Antibody (YA3387)

Cat. No.:	HY-P83642
Synonyms:	Ravtansine (DM4) is a maytansinoid, a chemical derivative of maytansine being investigated as the cytotoxic payload of a number of antibody-drug conjugates (ADCs). Microtubules are dynamic cytoskeletal polymers that switch stochastically between states of growing and shortening, called “dynamic instability”. They function in the precise segregation of chromosomes during cell division, transport of cellular cargos, and positioning and movement of intracellular organelles. Inhibition of microtubule function leads to cell cycle arrest and cell death. Microtubule-targeted drugs including the Vinca alkaloids, taxanes, and epothilones suppress the dynamic instability of microtubules, induce mitotic arrest, inhibit cell proliferation and induce apoptosis. The anticancer properties of maytansinoids have been attributed to their ability to disrupt microtubule function. The maytansinoid emtansine (DM1), for example, binds at the ends of microtubules and thereby suppress their dynamic instability. It is synthesized in order to link maytansinoids to antibodies via disulfide bonds. Maytansinoids inhibit tubulin polymerization and microtubule assembly and enhance microtubule destabilization, so there is potent suppression of microtubule dynamics resulting in a mitotic block and subsequent apoptotic cell death. DM4 can be used in the preparation of antibody drug conjugate. Although S-methyl DM1 and S-methyl DM4 inhibited microtubule assembly more weakly than maytansine, they suppressed dynamic instability more strongly than maytansine. Like vinblastine, the maytansinoids potently suppress microtubule dynamic instability by binding to a small number of high affinity sites, most likely at microtubule ends. Thus, the maytansine derivatives that result from cellular metabolism of the antibody conjugates are themselves potent microtubule poisons, interacting with microtubules as effectively as or more effectively than the parent molecule.
Host:	Rabbit
Reactivity:	Species independent
Conjugation:	Non-conjugated

PROPERTIES

Formulation	Supplied in PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.	
Purity	Affinity Purified	
Storage & Stability	Stored at -20°C for 1 year. Avoid repeated freeze / thaw cycles.	
Appearance	Liquid	
Application & Dilution Ratio	Application	Dilution Ratio
	ELISA	1:10,000
Shipping	Shipping with blue ice.	

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

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