MU01102

DM1 Antibody

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☐ 50ul;100ul;1000ul;

Description:

Mertansine, also called DM1 (and in some of its forms emtansine), is a thiol-containing maytansinoid that for therapeutic purposes is attached to a monoclonal antibody through reaction of the thiol group with a linker structure to create an antibody-drug conjugate (ADC). Mertansine is a tubulin inhibitor, meaning that it inhibits the assembly of microtubules by binding to tubulin (at the rhizoxin binding site). The monoclonal antibody binds specifically to a structure (usually a protein) occurring in a tumour, thus directing mertansine into this tumour. This concept is called targeted therapy. Trastuzumab emtansine also known as ado-trastuzumab emtansine and sold under the trade name Kadcyla, is an antibody-drug conjugate consisting of the humanized monoclonal antibody trastuzumab (Herceptin) covalently linked to the cytotoxic agent DM1. Trastuzumab alone stops growth of cancer cells by binding to the HER2 receptor, whereas trastuzumab emtansine undergoes receptor-mediated internalization into cells, is catabolized in lysosomes where DM1-containing catabolites are released and subsequently bind tubulin to cause mitotic arrest and cell death. Trastuzumab binding to HER2 prevents homodimerization or heterodimerization (HER2/HER3) of the receptor, ultimately inhibiting the activation of MAPK and PI3K/AKT cellular signalling pathways. Because the monoclonal antibody targets HER2, and HER2 is only over-expressed in cancer cells, the conjugate delivers the cytotoxic agent DM1 specifically to tumor cells.

Source： Mouse

Clonality： Recombinant Mouse monoclonal Antibody

Concentration： 1 mg/ml

Application： ELISA

Image:

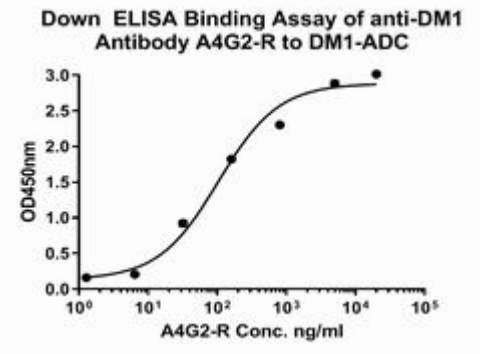

Fig1:Direct ELISA analysis of DM1 was performed by coating wells of a 96-well plate with 50 µl per well of DM1 antigen diluted in carbonate/bicarbonate buffer, at a concentration of 1 µg/mL overnight at 4℃. Wells of the plate were washed, blocked with StartingBlock blocking buffer, and incubated with 50 µl per well of a mouse DM1 monoclonal antibody starting at a concentration of 20 µg/mL and serially diluting it to a concentration of 1.28 ng/mL for 2 hours at room temperature. The plate was washed and incubated with 50 µl per well of an HRP-conjugated goat anti-mouse IgG secondary antibody at a dilution of 1:10,000 for one hour at room temperature. Detection was performed using an Ultra TMB Substrate for 5 minutes at room temperature in the dark. The reaction was stopped with sulfuric acid and absorbances were read on a spectrophotometer at 450 nm.

Storage:

Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw

cycles.