



Mouse Anti-Human Colorectal Carcinoma/CD3 (Bispecific) Monoclonal Antibody Datasheet

Product Name: mAb anti-Human Colorectal Carcinoma/CD3 **Clone No.:** BS-1

Catalogue No.: MO-T40035 **Quantity:** 0.5 mg/vial

Description: This is a **bispecific** antibody produced by fusion of two hybridoma cell lines. The human colorectal carcinoma antigen (CRC) mAb secreting cell line was transfected by mpSV2gpt. The human CD3 mAb secreting cell line (JXT3) was transfected by mpSV2neo. The somatic fusion between CRC and JXT3 cells produced quadroma CRCgpt/CD3neo, which were selected and cloned in media containing both Mycophenolic acid and Geneticin. Quadromas showing both murine IgG1 and IgG2a was subcloned for bispecific antibody CRC/CD3 production.

Purification: Protein G affinity purified

Target Protein: Human colorectal carcinoma related protein and cluster of differentiation 3 (CD3) on T-cells.

Immunogen: The original CRC mAb (Y94) used human colorectal carcinoma as immunogen. The original CD3 mAb (JXT3) used human peripheral T lymphocytes as immunogen

Fusion Myeloma: No information

Specificity: This antibody recognizes human colorectal carcinoma related protein and CD3 molecule on T cells.

Species Reactivity: Human, others not tested

Host / Isotype: Mouse, IgG1/IgG2a

Formulation: Lyophilized in 0.01M PBS, pH 7.0

Reconstitution: Double distilled water is recommended to reconstitute the antibody

Storage: Store at -20°C

Research Area: Immunology, T-cell receptor. Oncology

Background: Colorectal carcinoma is the cancer developed in the colon or rectum of the digestive system. In developed countries, it is the most common cancer in aging population. Genetic deposition and a less active life style contribute to the development of the cancer. Molecular pathological study showed that altered Wnt-APC- β -catenin signaling pathway, mutated p53, and deactivated TGF- β and DCC (Deleted in Colon Cancer) are involved with the pathogenesis. The cancer is currently screened with a fecal occult blood test in people over 50 years old and the malignancy is confirmed by tumor biopsy. The search for specific biomarker for non-invasive test is still ongoing.

CD3 exists on the cell surface of all T-cell types. It is used for differentiating T-cells from other leukocytes such as B cells and natural killer cells. CD3 is the accessory molecule in the T cell receptor

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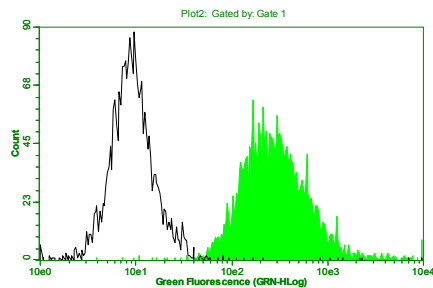
complex. In the presence of CD3 and ζ -chain, T-cell receptor binds to antigen presented by MHC and transfers signal for T-cell activation.

The hybrid bi-specific antibody binds to CD3 and colorectal carcinoma related antigen at its two different Fabs. Theoretically, the bi-specific antibody brings the target cancer antigen near T-cells and could enhance T-cell mediated immunity to cancer. However, if the binding to CD3 disrupts the CD3's accessory function, T-cell immunity suppression could be resulted.

Application:

ELISA: The bi-specific antibody has been shown to detect the presence of the tumor-associated antigen in the serum of patients with colorectal carcinoma, and reacted with mucin-like oncofetal pancarcinoma antigen, glycoprotein TAG-72.

Fluorescence flow cytometry:



Above is the histogram of Jurkat cells stained with mouse anti-Human

colorectal carcinoma/CD3 (bispecific) mAb (10 μ g/ml) and fluorescence labelled secondary antibody. Black line represents the histogram of control antibody, mouse anti-TB 38Kd antigen mAb clone B12F8 (Cat. No. MO-I40021D).

References:

If research is published using this product, please inform Anogen in order to cite the reference on this datasheet. Anogen will provide one unit of product in the same category as gratitude.

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