β-2-Microglobulin (BBM.1): sc-13565

BACKGROUND

Major histocompatibility complex (MHC) class 1 molecules bind to antigens for presentation on the surface of cells. The proteasome is responsible for producing these antigens from the components of foreign pathogens. MHC class 1 molecules consist of an α heavy chain that contains three sub-domains (α1, α2, α3) and a non-covalent associating light chain, known as β-2-Microglobulin. β-2-Microglobulin associates with the α3 subdomain of the α heavy chain and forms an immunoglobulin domain-like structure that mediates proper folding and expression of MHC class 1 molecules. The α1 and α2 domains of the α heavy chain form the peptide antigen-binding cleft. Mice that lack β-2-Microglobulin protein show a normal distribution of T cells, yet have no mature CD4-8+ T cells and are defective in CD4-8+ T cell-mediated cytotoxicity. Interferon-γ can stimulate production of β-2-Microglobulin transcripts. The human β-2-Microglobulin gene maps to chromosome 15q21.1 and encodes a 119 amino acid protein. Mutations in the β-2-Microglobulin gene can enhance the progression of malignant melanoma phenotypes.

CHROMOSOMAL LOCATION

Genetic locus: B2M (human) mapping to 15q21.1; B2m (mouse) mapping to 2 E5.

SOURCE

β-2-Microglobulin (BBM.1) is a mouse monoclonal antibody raised against a MOLT-4 human T cell line.

PRODUCT

Each vial contains 200 µg IgG2b, κ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

β-2-Microglobulin (BBM.1) is available conjugated to agarose (sc-13565 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-13565 HRP), 200 µg/ml, for WB, (HCP) and ELISA; to either phycoerythrin (sc-13565 PE), fluorescein (sc-13565 FITC), Alexa Fluor® 488 (sc-13565 AF488), Alexa Fluor® 546 (sc-13565 AF546), Alexa Fluor® 594 (sc-13565 AF594) or Alexa Fluor® 647 (sc-13565 AF647), 200 µg/ml, for WB (RGB), IF, (HCP) and FCM; and to either Alexa Fluor® 680 (sc-13565 AF680) or Alexa Fluor® 790 (sc-13565 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS


Molecular Weight of β-2-Microglobulin: 12 kDa.

STORE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA

β-2-Microglobulin (BBM.1): sc-13565. Western blot analysis of β-2-Microglobulin expression in HL-60 whole cell lysate.

SELECT PRODUCT CITATIONS


RESEARCH USE

For research use only, not for use in diagnostic procedures.

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