

anti-human CD38

Monoclonal Antibody HI157 to CD38 (Human)

Cat-No: **21810381**

100 µg in 100 µl

Clone: HI157

Specificity: The antibody HI157 recognizes a 45 kDa type II transmembrane glycoprotein strongly expressed on thymocytes, activated T and B cells, hematopoietic progenitors and terminally differentiated B cells-plasma cells (at high levels). CD38 antigen is also present on monocytes, dendritic cells, NK cells and some epithelial cells. It is a NAD glycohydrolase and is a regulator of cell activation and proliferation, and also involved in adhesion between human lymphocytes and endothelial cells.

Isotype subclass: Mouse IgG2a

Form: Purified from ascites by protein-G affinity chromatography.

Physical state: Liquid

Buffer/Additives/Preservative: PBS containing 0.09 % sodium azide (pH 7.2).

Expiration date: The reagent is stable until the expiry date stated on the vial label.

Storage conditions: Store at 4°C. For long-term storage aliquot and store at -20°C. Avoid freeze/thaw cycles.

Application: Flow Cytometry, Immunohistochemistry (frozen)

Background: CD38 (NAD⁺ glycohydrolase) is a type II transmembrane glycoprotein able to induce activation, proliferation and differentiation of mature lymphocytes and mediate apoptosis of myeloid and lymphoid progenitor cells. Another role of CD38 is provided by enzymatic activity of its extracellular part. CD38 acts as NAD⁺ glycohydrolase converting NAD⁺ into ADP-ribose, as ADP-ribosyl cyclase producing cADPR and as cADPR hydrolase, thus affecting levels of calcium-mobilizing metabolites. ADPR produced by CD38 serves as an important second messenger of neutrophil and dendritic cell migration.

References:

- *) Yang CY., Shen DC., She M., et al., 1993. The study of a CD38 monoclonal antibody. J. Monoclonal Antibody. 9(4): 56
- *) McMichael AJ., P.C.L. Beverly, W. Gilks, et al. eds. 1987. Leucocyte Typing III: White Cell Differentiation Antigens. P: 41, 57, 66 Oxford University Press, New York
- *) Schlossmann S. L.Bloumsell, W.Gilks, et al. eds. 1995. Leucocyte Typing V: White Cell Differentiation Antigens. P: 249,269 Oxford University Press, New York

Warning: Sodium azide is harmful if swallowed (R22). Keep out of reach of children (S2). Keep away from food, drink and animal feeding stuff (S13). Wear suitable protective clothing (S36). If swallowed, seek medical advice immediately and show this container or label (S46). Contact with acids liberates very toxic gas (R32). Azide compounds should be flushed with large volumes of water during disposal to avoid deposits in lead or copper plumbing where explosive conditions can develop.

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