

anti-human CD18

Monoclonal Antibody HI18a to CD18 (Human)

Cat-No: **21810181**

100 µg in 100 µl

Clone: HI18a

Specificity: The antibody HI18a recognizes a 95kDA transmembrane protein, integrin β 2 subunit, which associates respectively with the integrin α subunits: CD11a, CD11b, CD11c and CD11d forming four heterodimers names CD11a/CD18 (LFA-1), CD11b/CD18 (Mac-1), CD11c/CD18 (p150,95) and CD11d/CD18 (ad β 2). Membrane expression of integrins requires the presence of CD18 subunit. The CD18 integrins are expressed exclusively on leucocytes and play an important role in homotypic and heterotypic cellular adhesion in immune and inflammatory responses. Patients who have mutated CD18 gene do not express cell membrane CD11/CD18 integrins, a condition known as leucocyte adhesion.

Isotype subclass: Mouse IgG1

Form: Purified by Protein G affinity chromatography

Purity: > 95% (by SDS-PAGE).

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

References:

Bazil V. et al., Folia Biol. (Praha) 36, 41 (1990).

Drbal K. et al., Biochem. Biophys. Res. Commun. 275, 295 (2000).

Background: **CD18**, integrin β 2 subunit, forms heterodimers with four types of CD11 molecule to constitute leukocyte (β 2) integrins: α L β 2 (CD11a/CD18, LFA-1), α M β 2 (CD11b/CD18, Mac-1, CR3), α X β 2 (CD11c/CD18) and α D β 2 (CD11d/CD18). In most cases, the response mediated by the integrin is a composite of the functions of its individual subunits. These integrins are essential for proper leukocyte migration, mediating intercellular contacts. Absence of CD18 leads to leukocyte adhesion deficiency-1; severe reduction of CD18 expression leads to the development of a psoriasiform skin disease. CD18 is also a target of Mannheimia (Pasteurella) haemolytica leukotoxin and is sufficient to mediate leukotoxin-mediated cytolysis.

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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