

anti-human CD62P

Monoclonal Antibody HI62P to CD62P (Human)

Cat-No: **21270621**

100 µg in 100 µl

Clone: HI62P

Specificity: The antibody HI62P recognizes a 140 kD long single chain type I transmembrane glycoprotein, P-selectin, also called Granule membrane protein-140 (GMP-140) or platelet activation dependent granule-external membrane protein (PADGEM). CD62P antigen is present in the α -granules of platelets and in Weibel-Palade bodies of endothelial cells, and is rapidly mobilized from storage granules to the cell surface after cell activation. So, CD62P is expressed on the surface of the activated platelets. Interaction of CD62P with PSGL-1 (CD162) mediates tethering and rolling of leukocytes on the surface of activated endothelial cells, the first step in leukocyte extravasation and migration towards sites of inflammation. It also mediates rolling of platelets on endothelial cells and CD62P-mediated interactions are also involved in platelet-mediated delivery of lymphocytes to high endothelial venules (HEV)

Isotype subclass: Mouse IgG1

Form: Purified from ascites 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:

- *) Ramachandran V, Williams M, Yago T, Schmidtke DW, McEver RP: Dynamic alterations of membrane tethers stabilize leukocyte rolling on P-selectin. Proc Natl Acad Sci U S A. 2004 Sep 14;101(37):13519-24.
- *) Martinez M, Joffraud M, Giraud S, Baïm;sse B, Bernimoulin MP, Schapira M, Spertini O: Regulation of PSGL-1 interactions with L-selectin, P-selectin, and E-selectin: role of human fucosyltransferase-IV and -VII. J Biol Chem. 2005 Feb 18;280(7):5378-90.
- *) Harakawa N, Shigeta A, Wato M, Merrill-Skoloff G, Furie BC, Furie B, Okazaki T, Domae N, Miyasaka M, Hirata T. P-selectin glycoprotein ligand-1 mediates L-selectin-independent leukocyte rolling in high endothelial venules of peripheral lymph nodes. Int Immunol. 2007 Mar;19(3):321-9.

Background: **CD62P** (P-selectin) is an adhesion glycoprotein that is expressed on platelets and endothelial cells upon their activation. Interaction between CD62P and its mucin-like ligand PSGL-1 (P-selectin glycoprotein ligand-1) expressed on the microvilli of most leukocytes supports leukocyte rolling along postcapillary venules at the earliest time of inflammation. Both CD62P and PSGL-1 are extended glycoproteins that form homodimers. CD62P dimerization is probably mediated through interactions of the transmembrane domains and stabilizes leukocyte tethering and rolling, probably by increasing rebinding within a bond cluster.

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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