

CD37 (Peripheral Mature B-Cell Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone IPO-24]

Catalog # AH12730

Product Information

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| Application | IF, FC |
| Primary Accession | P11049 |
| Other Accession | 951 , 166556 |
| Reactivity | Human |
| Host | Mouse |
| Clonality | Monoclonal |
| Isotype | Mouse / IgG2b, kappa |
| Clone Names | IPO-24 |
| Calculated MW | 31703 |

Additional Information

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| Gene ID | 951 |
| Other Names | Leukocyte antigen CD37, Tetraspanin-26, Tspan-26, CD37, CD37, TSPAN26 |
| Application Note | IF~~1:50~200 FC~~1:10~50 |
| Storage | Store at 2 to 8°C.Antibody is stable for 24 months. |
| Precautions | CD37 (Peripheral Mature B-Cell Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures. |

Protein Information

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| Name | CD37 |
| Synonyms | TSPAN26 |
| Function | Structural component of specialized membrane microdomains known as tetraspanin-enriched microdomains (TERMs), which act as platforms for receptor clustering and signaling. Participates thereby in diverse biological functions such as cell signal transduction, adhesion, migration and protein trafficking (PubMed: 22624718). Upon ligand binding, two signaling pathways are activated, one acting through phosphorylation by LYN leading to cell death or a survival pathway with activation of GSK3B (PubMed: 22624718). Plays an essential role essential for clustering of integrin ITGA4/ITGB1 and promotes its mobility in the plasma membrane of B-cells. In turn, participates in ITGA4/ITGB1 integrin-mediated antiapoptotic signaling through AKT (By similarity). Also plays a role in the migration of dendritic cells and neutrophils |

to draining lymph nodes, as well as in their integrin- mediated adhesion (By similarity). Negatively regulates IL-6 responses through direct interaction with SOCS3 thereby preventing constitutive IL-6 signaling (PubMed:[26784544](#)). Alternatively, inhibition of IL-6 signaling can also occur via interaction and stabilization of DECTIN1/CLEC7A at the cell membrane to inhibit its ability to promote the production of IL-6 (PubMed:[17182550](#)).

Cellular Location

Cell membrane; Multi-pass membrane protein

Tissue Location

B-lymphocytes (PubMed:26784544). Antigen presenting cells (PubMed:17182550).

Background

Recognizes a protein of 33-55kDa, identified as CD37 (Workshop V; Code CD37.7). CD37 is strongly expressed on normal and neoplastic mature (sIg+) B-lymphocytes. In B-cell ontogeny, CD37 appears after the pre-B-cell stage, is maintained during peripheral B-cell development and is lost upon terminal differentiation into plasma cells.¹ CD37 is also present, at low densities, on resting and activated T cells, neutrophils, monocytes, and some myelomonocytic leukemia cells. It is absent from platelets, erythrocytes. CD37 is a member of a family of tetraspan transmembrane proteins, including CD9, CD53, CD63, CD81, and CD82. It associates other tetraspan transmembrane proteins and MHC class II molecules to form a large complex at the surface of B cells and play a role in signal transduction. CD37 is a valuable and stable marker for peripheral mature B-cells and corresponding malignancies like B-cell chronic lymphocytic leukemia (B-CLL), hairy cell leukemia (HCL), and all types of B-cell non-Hodgkin's[™] lymphoma (B-NHL).

References

Schlossman SF et al. eds. Leukocyte Typing V, p556-559, Oxford University Press, Oxford, 1995. | Sidorenko SP et al. Monoclonal antibodies of the IPO series in studying and diagnosing malignant lymphoproliferative diseases. Gematol Transfuziol 1990, 35(4):19-22 | Sidorenko SP et al. Monoclonal antibodies of IPO series against B cell differentiation antigens in leukemia and lymphoma immunophenotyping Neoplasma 1992;39(1):3-9. | Maecker HT et al. The tetraspanin superfamily: molecular facilitators. FASEB J 1997,11(6):428-442 | Angelisova P et al. Association of four antigens of the tetraspans family (CD37, CD53, TAPA-1, and R2/C33) with MHC class II glycoproteins. Immunogenetics 1994;39(4):249-256

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