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CD53 (TSPAN25) Antibody - With BSA and Azide
Mouse Monoclonal Antibody [Clone 63-5A3]
Catalog # AH12760

Specification

CD53 (TSPAN25) Antibody - With BSA and Azide - Product Information

Application	**IF, FC**
Primary Accession	P19397
Other Accession	963, 443057
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse / IgG2b, kappa**
Calculated MW	**33-55kDa KDa**

CD53 (TSPAN25) Antibody - With BSA and Azide - Additional Information

Gene ID 963

Other Names
Leukocyte surface antigen CD53, Cell surface glycoprotein CD53, Tetraspanin-25, Tspan-25, CD53, CD53, MOX44, TSPAN25

Application Note
IF~~1:50~200<br \>FC~~1:10~50

Storage
Store at 2 to 8°C.Antibody is stable for 24 months.

Precautions
CD53 (TSPAN25) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

CD53 (TSPAN25) Antibody - With BSA and Azide - Protein Information

Name CD53

Synonyms MOX44, TSPAN25

Function
Structural component of specialized membrane microdomains known as tetraspanin-enriched microdomains (TERMs), which act as platforms for receptor clustering and signaling (PubMed:28487417). Participates thereby in diverse biological functions such as cell signal transduction, adhesion, migration and protein trafficking (PubMed:32974937, PubMed:35767951). Plays a role in the activation of monocytes and B-cells

(PubMed:8335905). Acts as an essential regulator of B-cell development by promoting interleukin-7 receptor/IL7R signaling (By similarity). Also promotes, in B-cells, the BCR signaling by recruiting PKC to the plasma membrane in order to phosphorylate its substrates (PubMed:28487417). Plays an essential role in B- and T-cells homing to lymph nodes by stabilizing L-selectin/SELL cell surface expression (By similarity). Also mediates metabolic and inflammatory functions in hepatocytes and adipose tissue by promoting TNF-alpha and LPS signaling independent of the immune compartment (By similarity).

Cellular Location
Cell membrane. Cell junction {ECO:0000250|UniProtKB:Q61451}. Membrane; Multi-pass membrane protein. Synapse. Note=Concentrates in localized microdomains along the plasma membrane at the contact sites between cells of fused myotubes. {ECO:0000250|UniProtKB:Q61451}

Tissue Location
B-cells, monocytes, macrophages, neutrophils, single (CD4 or CD8) positive thymocytes and peripheral T-cells

CD53 (TSPAN25) Antibody - With BSA and Azide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CD53 (TSPAN25) Antibody - With BSA and Azide - Images

CD53 (TSPAN25) Antibody - With BSA and Azide - Background

Recognizes a protein of 33-55kDa, identified as CD53 (Workshop V; Code CD53.1). CD53 is expressed on monocytes, and macrophages, granulocytes, dendritic cells, osteoblasts and osteoclasts, NK cells, and on T- and B-cells from every stage of differentiation but is absent from platelets, erythrocytes, and non-haemopoietic cells. CD53 is a member of a family of tetraspan transmembrane proteins, including CD9, CD37, CD63, CD81, and CD82. It associates with integrins, MHC class II molecules, and a tyrosine phosphatase and plays a role in cellular activation as part of a signal transduction complex involving other membrane glycoproteins. Defects of CD53 expression on neutrophils appear to be related with recurrent infectious diseases. Cross-linking CD53 using CD53 antibodies led to cytoplasmic calcium fluxes in B cells, monocytes, and granulocytes and activation of the monocyte oxidative burst.

CD53 (TSPAN25) Antibody - With BSA and Azide - References

Knapp, W. et al., Leucocyte typing IV, p 534 and p 541. Oxford Univ. Press. 1989 | Schlossman SF et al. eds. Leukocyte Typing V, p556-559, Oxford University Press, Oxford, 1995. | Kishimoto T et al. eds. Leukocyte Typing VI, Garland Publishing, New York, 1997. | Olweus J et al. CD53, a protein with four membrane-spanning domains, mediates signal transduction in human monocytes and B cells. J Immunol 1993, 151(2):707-716. | Mannion BA et al. Transmembrane-4 superfamily proteins CD81 (TAPA-1), CD82, CD63, and CD53 specifically associated with integrin □□□□ (CD49d/CD29). J

Immunol 1996, 157(5):2039-2047. | Carmo AM et al. Association of the transmembrane 4-superfamily molecule CD53 with a tyrosine phosphatase activity. Eur J Immunol 1995, 25(7):2090-2095. | Mollinedo F et al. Recurrent infectious diseases in human CD53 deficiency. Clin Diagn Lab Immunol 1997, 4(2):229-231