10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CD6 Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone SPV-L14]
Catalog # AH12620

Product Information

Application	IF, FC
Primary Accession	P30203
Other Accession	923, 744366
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1
Clone Names	SPV-L14
Calculated MW	71801

Additional Information

Gene ID	923
Other Names	T-cell differentiation antigen CD6, T12, TP120, CD6, CD6
Application Note	IF~~1:50~200 FC~~1:10~50
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	CD6 Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CD6 (HGNC:1691)
Function	Cell adhesion molecule that mediates cell-cell contacts and regulates T-cell responses via its interaction with ALCAM/CD166 (PubMed:15048703, PubMed:15294938, PubMed:16352806, PubMed:16914752, PubMed:24584089, PubMed:24945728). Contributes to signaling cascades triggered by activation of the TCR/CD3 complex (PubMed:24584089). Functions as a costimulatory molecule; promotes T-cell activation and proliferation (PubMed:15294938, PubMed:16352806, PubMed:16914752). Contributes to the formation and maturation of the immunological synapse (PubMed:15294938, PubMed:16352806). Functions as a calcium- dependent pattern receptor that binds and aggregates both Gram-positive and Gram-negative bacteria. Binds both lipopolysaccharide (LPS) from Gram-negative bacteria and lipoteichoic acid from Gram-positive bacteria (PubMed:17601777). LPS binding leads to the activation of signaling cascades and down-stream MAP kinases (PubMed:17601777). Mediates activation of

	the inflammatory response and the secretion of pro-inflammatory cytokines in response to LPS (PubMed:17601777).
Cellular Location	Cell membrane; Single-pass type I membrane protein. Note=Detected at the immunological synapse, i.e, at the contact zone between antigen-presenting dendritic cells and T-cells (PubMed:15294938, PubMed:16352806). Colocalizes with the TCR/CD3 complex at the immunological synapse (PubMed:15294938)
Tissue Location	Detected on thymocytes (PubMed:15294938). Detected on peripheral blood T-cells (PubMed:15048703, PubMed:16352806) Detected on natural killer (NK) cells (PubMed:16352806). Soluble CD6 is detected in blood serum (at protein level) (PubMed:17601777). Detected in spleen, thymus, appendix, lymph node and peripheral blood leukocytes (PubMed:9013954). Expressed by thymocytes, mature T-cells, a subset of B-cells known as B-1 cells, and by some cells in the brain

Background

CD6 is a type I transmembrane glycoprotein that contains a 24-amino acid signal sequence, three extracellular scavenger receptor cysteine-rich (SRCR) domains, a membrane-spanning domain and a 44-amino acid cytoplasmic domain. The CD6 glycoprotein is tyrosine phosphorylated during TCR-mediated T cell activation. CD6 shows significant homology to CD5. CD6 is present on mature thymocytes, peripheral T cells and a subset of B cells. Antibodies to CD6 are used to deplete T cells from bone marrow transplants to prevent graft versus host disease.

References

Kamoun et al., J. Immunol. 127, 987, 1981 | Reinherz et al., Proc. Nat. Acad. Sci. 79, 6047, 1982 | Yssel, H., de Vries, J.E., Borst, J. and Spits, H. Distribution and functional analysis of a 120-130 kDa T cell surface antigen. Cell. Immunol. 105: 161-173, 1987. | Bazil, V et. al. 1989. Monoclonal antibodies against human leucocyte antigens. III. Antibodies against CD45R, CD6, CD44 and two newly described broadly expressed glycoproteins MEM-53 and MEM-102. Folia. Biol. 35:289-297

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.