

CD6 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1759a**Specification****CD6 Antibody - Product Information**

Application	WB, IHC, E
Primary Accession	P30203
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	71.8kDa KDa

Description

This gene encodes a protein found on the outer membrane of T-lymphocytes as well as some other immune cells. The encoded protein contains three scavenger receptor cysteine-rich (SRCR) domains and a binding site for an activated leukocyte cell adhesion molecule. The gene product is important for continuation of T cell activation. This gene may be associated with susceptibility to multiple sclerosis (PMID: 19525953, 21849685). Multiple transcript variants encoding different isoforms have been found for this gene.

Immunogen

Purified recombinant fragment of human CD6 (AA: 472-668) expressed in E. Coli.

Formulation

Purified antibody in PBS with 0.05% sodium azide

CD6 Antibody - Additional Information

Gene ID 923

Other Names

T-cell differentiation antigen CD6, T12, TP120, CD6, CD6

Dilution

WB~~1/500 - 1/2000

IHC~~1/200 - 1/1000

E~~1/10000

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

CD6 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

CD6 Antibody - 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

CD6 Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

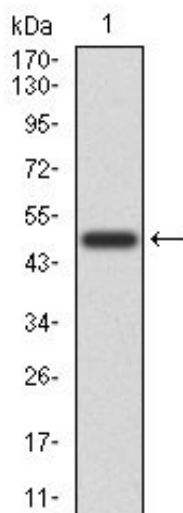
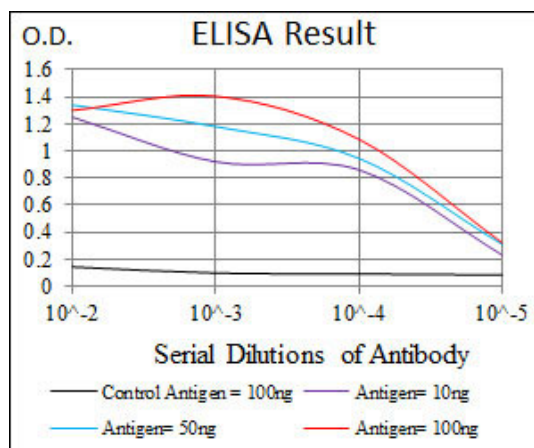


Figure 1: Western blot analysis using CD6 mAb against human CD6 recombinant protein. (Expected MW is 46.9 kDa)

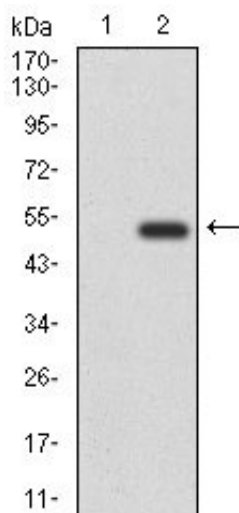


Figure 2: Western blot analysis using CD6 mAb against HEK293 (1) and CD6 (AA: 472-668)-hIgGfc transfected HEK293 (2) cell lysate.

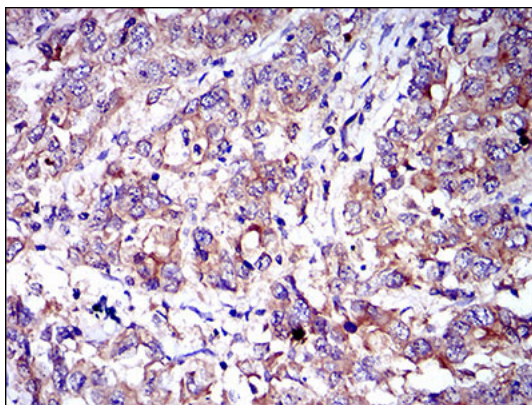


Figure 3: Immunohistochemical analysis of paraffin-embedded stomach cancer tissues using CD6 mouse mAb with DAB staining.

CD6 Antibody - References

1. J Autoimmun. 2010 Dec;35(4):336-41.
2. Proc Natl Acad Sci U S A. 2007 Jul 10;104(28):11724-9.