

CD6 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1996a

Specification

CD6 Antibody - Product Information

Application	WB, IHC, FC, E
Primary Accession	P30203
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2b
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: Extra(18-199)) 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
FC~~1/200 - 1/400
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](http://www.uniprot.org/citations/15048703)), PubMed:[15294938](http://www.uniprot.org/citations/15294938), PubMed:[16352806](http://www.uniprot.org/citations/16352806), PubMed:[16914752](http://www.uniprot.org/citations/16914752), PubMed:[24584089](http://www.uniprot.org/citations/24584089), PubMed:[24945728](http://www.uniprot.org/citations/24945728)). Contributes to signaling cascades triggered by activation of the TCR/CD3 complex (PubMed:[24584089](http://www.uniprot.org/citations/24584089)). Functions as a costimulatory molecule; promotes T-cell activation and proliferation (PubMed:[15294938](http://www.uniprot.org/citations/15294938), PubMed:[16352806](http://www.uniprot.org/citations/16352806), PubMed:[16914752](http://www.uniprot.org/citations/16914752)). Contributes to the formation and maturation of the immunological synapse (PubMed:[15294938](http://www.uniprot.org/citations/15294938), PubMed:[16352806](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/17601777)). LPS binding leads to the activation of signaling cascades and down-stream MAP kinases (PubMed:[17601777](http://www.uniprot.org/citations/17601777)). Mediates activation of the inflammatory response and the secretion of pro-inflammatory cytokines in response to LPS (PubMed:[17601777](http://www.uniprot.org/citations/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](#)

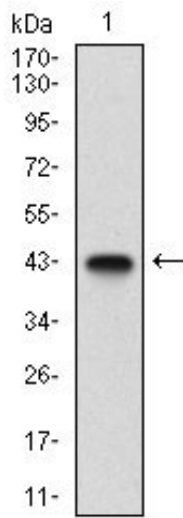
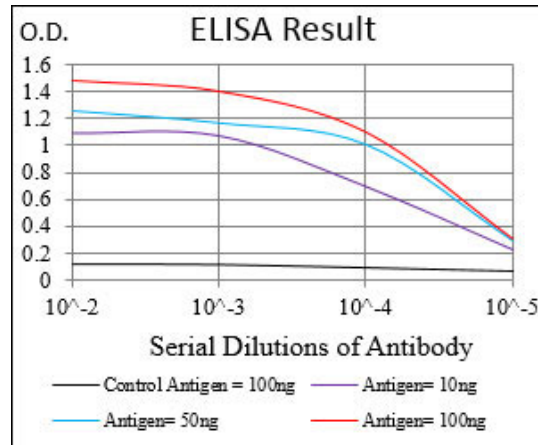


Figure 1: Western blot analysis using CD6 mAb against human CD6 (AA: Extra(18-199)) recombinant protein. (Expected MW is 44.8 kDa)

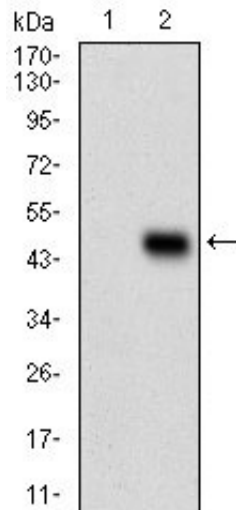


Figure 2: Western blot analysis using CD6 mAb against HEK293 (1) and CD6 (AA: Extra(18-199))-hlgGfc transfected HEK293 (2) cell lysate.

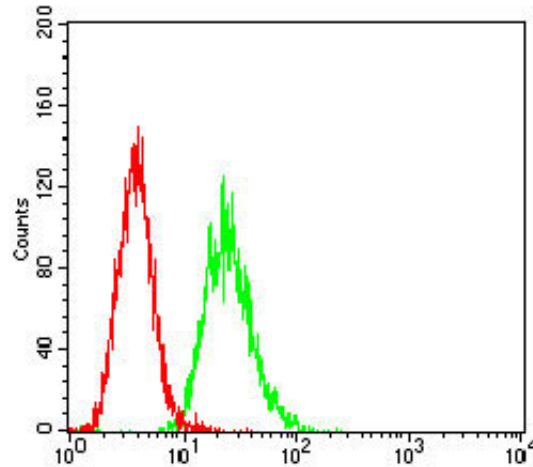


Figure 3: Flow cytometric analysis of Hela cells using CD6 mouse mAb (green) and negative control (red).

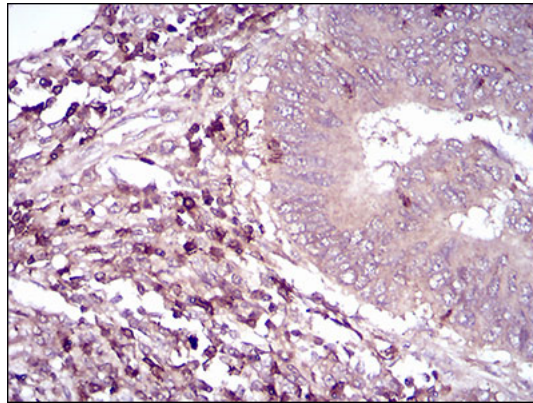


Figure 4: Immunohistochemical analysis of paraffin-embedded rectum cancer tissues using CD6 mouse mAb with DAB staining.

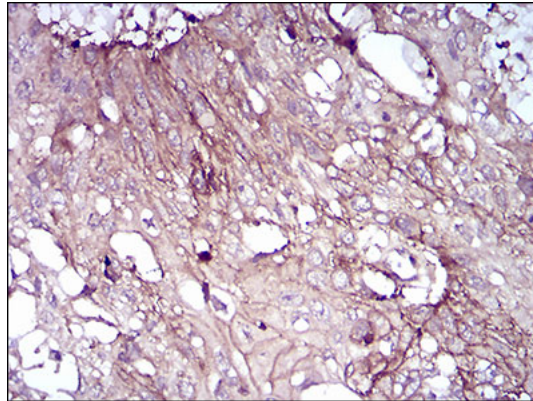


Figure 5: Immunohistochemical analysis of paraffin-embedded esophageal cancer tissues using CD6 mouse mAb with DAB staining.

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.