

# CD6 (F-5): sc-373753

## BACKGROUND

CD6 is a type I transmembrane glycoprotein that is present on mature thymocytes, peripheral T cells and a subset of B cells. The CD6 glycoprotein is tyrosine phosphorylated during TCR-mediated T-cell activation and the size difference between the CD6 forms is due in part to differences in phosphorylation state. CD6 protein 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. CD6 shows significant homology to CD5. CD6, which is also found in brain and B cell chronic lymphocytic leukemias, plays an important role in interactions of thymocytes with thymic epithelial cells. CD6 molecules can physically associate with the TCR/CD3 complex.

## REFERENCES

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3. Aruffo, A., et al. 1991. The lymphocyte glycoprotein CD6 contains a repeated domain structure characteristic of a new family of cell surface and secreted proteins. *J. Exp. Med.* 174: 949-952.
4. Singer, N.G., et al. 1996. Role of the CD6 glycoprotein in antigen-specific and autoreactive responses of cloned human T lymphocytes. *Immunology* 88: 537-543.
5. Gimferrer, I., et al. 2003. The accessory molecules CD5 and CD6 associate on the membrane of lymphoid T cells. *J. Biol. Chem.* 278: 8564-8571.
6. Castro, M.A., et al. 2003. OX52 is the rat homologue of CD6: evidence for an effector function in the regulation of CD5 phosphorylation. *J. Leukoc. Biol.* 73: 183-190.
7. Hassan, N.J., et al. 2004. Frontline: optimal T cell activation requires the engagement of CD6 and CD166. *Eur. J. Immunol.* 34: 930-940.
8. Gimferrer, I., et al. 2004. Relevance of CD6-mediated interactions in T cell activation and proliferation. *J. Immunol.* 173: 2262-2270.
9. Saifullah, M.K., et al. 2004. Expression and characterization of a novel CD6 ligand in cells derived from joint and epithelial tissues. *J. Immunol.* 173: 6125-6133.

## CHROMOSOMAL LOCATION

Genetic locus: CD6 (human) mapping to 11q12.2.

## SOURCE

CD6 (F-5) is a mouse monoclonal antibody raised against amino acids 369-668 of CD6 of human origin.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

CD6 (F-5) is recommended for detection of CD6 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CD6 siRNA (h): sc-35015, CD6 shRNA Plasmid (h): sc-35015-SH and CD6 shRNA (h) Lentiviral Particles: sc-35015-V.

Molecular Weight of CD6: 90-130 kDa.

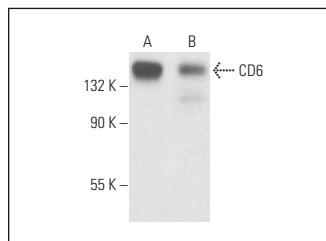
Positive Controls: Jurkat whole cell lysate: sc-2204, ALL-SIL whole cell lysate: sc-364356 or SUP-T1 whole cell lysate: sc-364796.

## RECOMMENDED SUPPORT REAGENTS

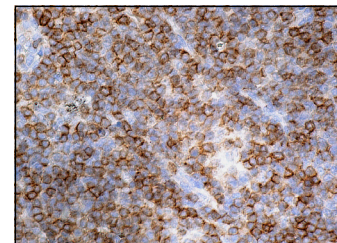
To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.
- 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
- 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.
- 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



CD6 (F-5): sc-373753. Western blot analysis of CD6 expression in ALL-SIL (A) and SUP-T1 (B) whole cell lysates.



CD6 (F-5): sc-373753. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing membrane and cytoplasmic staining of cells in germinal and non-germinal centers.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.