

# CD6 (14F6): sc-53886

## 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.
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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.
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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 (14F6) is a mouse monoclonal antibody raised against COS CD6 transfected cells 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> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

CD6 (14F6) is recommended for detection of CD6 of human origin by 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) and flow cytometry (1 µg per 1 x 10<sup>6</sup> cells).

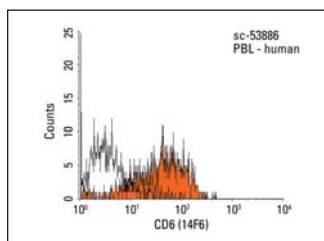
Suitable for use as control antibody for CD6 siRNA (h): sc-35015, CD6 shRNA Plasmid (h): sc-35015-SH and CD6 shRNA (h) Lentiviral Particles: sc-35015-V.

Molecular Weight of CD6: 90-130 kDa (depending on level of glycosylation).

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 2) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



CD6 (14F6): sc-53886. Indirect FCM analysis of human peripheral blood leukocytes stained with CD6 (14F6), followed by PE-conjugated goat anti-mouse IgG: sc-3738. Black line histogram represents the isotype control, normal mouse IgG<sub>1</sub>: sc-3877.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.