

# CD53 (H-120): sc-25595

## BACKGROUND

The CD53 antigen is a member of the tetraspanin membrane protein family that is expressed in the lymphoid-myeloid lineage. The tetraspanin superfamily (CD9, CD37, CD53, CD63, CD81 and CD82) comprises a group of cell-surface proteins that are involved in cell activation and signal transduction as well as in cell adhesion, motility and metastasis. Tetraspanin transmembrane proteins have a metastasis suppressor effect by acting as cell motility brakes in tumor cells. Human neutrophils express high levels of CD53, an N-glycosylated pan-leukocyte antigen and the true homolog of the rat MRC-OX-44 antigen. CD53 is expressed on B cells, monocytes, macrophages, neutrophils, single (CD4 or CD8) positive thymocytes and peripheral T cells.

## REFERENCES

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4. Rasmussen, AM., et al. 1994. Cross-linking of CD53 promotes activation of resting human B lymphocytes. *J. Immunol.* 153: 4997-5007.
5. Okochi, H., et al. 1997. Expression of tetra-spans transmembrane family (CD9, CD37, CD53, CD63, CD81 and CD82) in normal and neoplastic human keratinocytes: an association of CD9 with  $\alpha 3 \beta 1$  integrin. *Br. J. Dermatol.* 137: 856-863.
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## CHROMOSOMAL LOCATION

Genetic locus: CD53 (human) mapping to 1p13.3; Cd53 (mouse) mapping to 3 F2.3.

## SOURCE

CD53 (H-120) is a rabbit polyclonal antibody raised against amino acids 100-219 mapping at the C-terminus of CD53 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

CD53 (H-120) is recommended for detection of CD53 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CD53 (H-120) is also recommended for detection of CD53 in additional species, including porcine.

Suitable for use as control antibody for CD53 siRNA (h): sc-42796, CD53 siRNA (m): sc-42797, CD53 shRNA Plasmid (h): sc-42796-SH, CD53 shRNA Plasmid (m): sc-42797-SH, CD53 shRNA (h) Lentiviral Particles: sc-42796-V and CD53 shRNA (m) Lentiviral Particles: sc-42797-V.

Molecular Weight of CD53: 32-45 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, WEHI-231 whole cell lysate: sc-2213 or MCP-5 whole cell lysate.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## STORAGE

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

## RESEARCH USE

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

## PROTOCOLS

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


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Try **CD53 (B-12): sc-390185** or **CD53 (OX44): sc-53055**, our highly recommended monoclonal alternatives to CD53 (H-120).