

CD101 (N-20): sc-20212

BACKGROUND

CD101 is a disulfide-linked homodimeric polypeptide. The gene encoding the CD101 antigen is identical to the gene encoding for the V7 antigen, which corresponds to a type I transmembrane protein containing seven Ig-like loops in its extracellular domain. CD101 may play an important regulatory role during T cell activation and may also be useful in combination with other markers for the diagnosis of LCH (Langerhans cell histiocytosis). CD101 is expressed on monocytes, granulocytes, dendritic cells and at low levels on a subset of peripheral T-cells comprising both CD4⁺ and CD8⁺, as well as both CD45RA⁺ and CD45RO⁺ cells. Expression of CD101 increases upon T cell activation.

REFERENCES

1. Ruegg, C.L., Rivas, A., Madani, N.D., Zeitung, J., Laus, R. and Engleman, E.G. 1995. V7, a novel leukocyte surface protein that participates in T cell activation. II. Molecular cloning and characterization of the V7 gene. *J. Immunol.* 154: 4434-4443.
2. Bagot, M., Martinel, I., Charue, D., Weill, F., Boulland, M.L., Wechsler, J., Freeman, G.J., Bensussan, A. and Bousmell, L. 1997. CD101 is expressed by skin dendritic cells. Role in T-lymphocyte activation. *Tissue Antigens* 50: 439-448.
3. Soares, L.R., Tsavaler, L., Rivas, A. and Engleman, E.G. 1998. V7 (CD101) ligation inhibits TCR/CD3-induced IL-2 production by blocking Ca²⁺ flux and nuclear factor of activated T cell nuclear translocation. *J. Immunol.* 161: 209-217.
4. Boulloc, A., Bagot, M., Delaire, S., Bensussan, A. and Bousmell, L. 2000. Triggering CD101 molecule on human cutaneous dendritic cells inhibits T cell proliferation via IL-10 production. *Eur. J. Immunol.* 30: 3132-3139.
5. Boulloc, A., Boulland, M.L., Geissmann, F., Fraita, S., Andry, P., Teillac, D., Bensussan, A., Revuz, J., Bousmell, L., Wechsler, J. and Bagot, M. 2000. CD101 expression by Langerhans cell histiocytosis cells. *Histopathology* 36: 229-232.

CHROMOSOMAL LOCATION

Genetic locus: IGSF2 (human) mapping to 1p13.1.

SOURCE

CD101 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of CD101 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-20212 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

CD101 (N-20) is recommended for detection of CD101 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

CD101 (N-20) is also recommended for detection of CD101 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for CD101 siRNA (h): sc-42819, CD101 shRNA Plasmid (h): sc-42819-SH and CD101 shRNA (h) Lentiviral Particles: sc-42819-V.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



MONOS
Satisfation
Guaranteed

Try **CD101 (4j29): sc-70525**, our highly recommended monoclonal alternative to CD101 (N-20).