

CD151 (N-20)-R: sc-18753-R

BACKGROUND

CD151 is involved in a wide variety of cell biological processes, including cell adhesion and the transport of integrins via vesicles. The human CD151 gene maps to chromosome 11p15.5 and encodes a 253 amino acid protein, which belongs to the tetraspan (4TM) superfamily. CD151 can associate with several Integrin chains including $\beta 1$, $\beta 3$, $\beta 4$, $\alpha 2$, $\alpha 3$, $\alpha 5$ and $\alpha 6$ Integrins. CD151 may provide a framework for the spatial organization of both type I and type II hemidesmosomes, which are specialized junctional complexes that function as cell-attachment sites for binding to basement membranes. CD151 RNA transcript (1.6 kb) can be detected in MO7e cells, bone marrow stromal cells, C11 endothelial cells, HUVEC and several myeloid leukemia cell lines, however, no transcript is detected in brain and the lymphoblastoid cell lines MOLT-4 and BALM-1. Leu149-Glu213 of CD151 is the interface through which Integrins $\alpha 3/\beta 1$ can bind. CD151 can enhance cell motility, invasion and metastasis of cancer cells in a focal adhesion kinase dependent manner.

CHROMOSOMAL LOCATION

Genetic locus: CD151 (human) mapping to 11p15.5; Cd151 (mouse) mapping to 7 F5.

SOURCE

CD151 (N-20)-R is an affinity purified rabbit polyclonal antibody raised against a peptide mapping of CD151 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-18753 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

CD151 (N-20)-R is recommended for detection of CD151 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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).

CD151 (N-20)-R is also recommended for detection of CD151 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CD151 siRNA (h): sc-42829, CD151 siRNA (m): sc-42830, CD151 shRNA Plasmid (h): sc-42829-SH, CD151 shRNA Plasmid (m): sc-42830-SH, CD151 shRNA (h) Lentiviral Particles: sc-42829-V and CD151 shRNA (m) Lentiviral Particles: sc-42830-V.

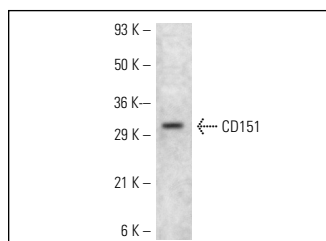
Molecular Weight of CD151: 28-32 kDa.

Positive Controls: human platelet whole cell lysate: sc-363773.

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.

DATA



CD151 (N-20): sc-18753. Western blot analysis of CD151 expression in human platelet whole cell lysate.

SELECT PRODUCT CITATIONS

1. Cowin, A.J., et al. 2006. Wound healing is defective in mice lacking tetraspanin CD151. *J. Invest. Dermatol.* 126: 680-689.
2. Kopecki, Z., et al. 2009. Flightless I regulates hemidesmosome formation and integrin-mediated cellular adhesion and migration during wound repair. *J. Invest. Dermatol.* 129: 2031-2045.
3. Zuo, H., et al. 2009. CD151 gene delivery after myocardial infarction promotes functional neovascularization and activates FAK signaling. *Mol. Med.* 15: 307-315.
4. Hung, T.M., et al. 2009. A novel nonsynonymous variant of matrix metalloproteinase-7 confers risk of liver cirrhosis. *Hepatology* 50: 1184-1193.
5. Liu, W.F., et al. 2011. Role of tetraspanin CD151- $\alpha 3/\alpha 6$ integrin complex: implication in angiogenesis CD151-integrin complex in angiogenesis. *Int. J. Biochem. Cell Biol.* 43: 642-650.

STORAGE

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

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Satisfaction
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Try **CD151 (H-8): sc-271216** or **CD151 (11G5a): sc-80715**, our highly recommended monoclonal alternatives to CD151 (N-20).