SANTA CRUZ BIOTECHNOLOGY, INC.

CD155 (B-6): sc-514623

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

CD155, a member of the immunoglobulin superfamily, acts as the human receptor for poliovirus (PV). All three serotypes of PV- PV1, 2, and 3- exhibit similar binding to CD155 in both its glycosylated and fully deglycosylated forms, indicating they utilize a common mechanism for cell entry. Additionally, CD155 undergoes cell-matrix contacts by binding to the matrix protein vitronectin. Along with the receptor form, three soluble isoforms, α, β and γ, also exist in human serum and cerebrospinal fluid, and CD155 mRNAs are highly expressed in liver tissue. The presence of soluble CD155 reduces polivirus entry mediated by the membrane-bound receptor, implying an important role for these soluble forms in cellular function.

REFERENCES

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2. He, Y., et al. 2003. Complexes of poliovirus serotypes with their common cellular receptor, CD155. J. Virol. 77: 4827-4835.
3. Mueller, S., et al. 2003. Recruitment of nectin-3 to cell-cell junctions through *trans*-heterophilic interaction with CD155, a vitronectin and poliovirus receptor that localizes to α(v)β3 integrin-containing membrane microdomains. J. Biol. Chem. 278: 31251-21560.
4. Baury, B., et al. 2003. Identification of secreted CD155 isoforms. Biochem. Biophys. Res. Commun. 309: 175-182.
5. Kakunaga, S., et al. 2004. Enhancement of serum- and platelet-derived growth factor-induced cell proliferation by Necl-5/Tage4/poliovirus receptor/CD155 through the Ras-Raf-MEK-ERK signaling. J. Biol. Chem. 279: 36419-36425.
6. Hirota, T., et al. 2005. Transcriptional activation of the mouse Necl-5/Tage4/PVR/CD155 gene by fibroblast growth factor or oncogenic Ras through the Raf-MEK-ERK-AP-1 pathway. Oncogene 24: 2229-2235.
7. Tomasec, P., et al. 2005. Downregulation of natural killer cell-activating ligand CD155 by human cytomegalovirus UL141. Nat. Immunol. 6: 181-188.

CHROMOSOMAL LOCATION

Genetic locus: PVR (human) mapping to 19q13.31.

SOURCE

CD155 (B-6) is a mouse monoclonal antibody raised against amino acids 31-118 mapping near the N-terminus of CD155 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

CD155 (B-6) is recommended for detection of CD155 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CD155 siRNA (h): sc-61903, CD155 shRNA Plasmid (h): sc-61903-SH and CD155 shRNA (h) Lentiviral Particles: sc-61903-V.

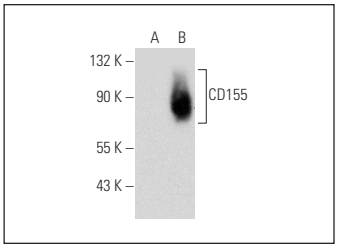
Molecular Weight of CD155: 70 kDa.

Positive Controls: CD155 (h): 293T Lysate: sc-175501.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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-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



CD155 (B-6): sc-514623. Western blot analysis of CD155 expression in non-transfected: sc-117752 (**A**) and human CD155 transfected: sc-175501 (**B**) 293T whole cell lysates.

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.