SANTA CRUZ BIOTECHNOLOGY, INC.

CD155 (SKII.4): sc-53572

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

1. Baury, B., et al. 2003. Identification of secreted CD155 isoforms. Biochem. Biophys. Res. Commun. 309: 175-182.
2. Ravens, I., et al. 2003. Characterization and identification of Tage4 as the murine orthologue of human poliovirus receptor/CD155. Biochem. Biophys. Res. Commun. 312: 1364-1371.
3. He, Y., et al. 2003. Complexes of poliovirus serotypes with their common cellular receptor, CD155. J. Virol. 77: 4827-4835.
4. 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 $\alpha_V\beta_3$ Integrin-containing membrane microdomains. J. Biol. Chem. 278: 31251-31260.
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.

CHROMOSOMAL LOCATION

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

SOURCE

CD155 (SKII.4) is a mouse monoclonal antibody raised against the SK-N-S1 neuroblastoma cell line of human origin.

PRODUCT

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

CD155 (SKII.4) is available conjugated to agarose (sc-53572 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-53572 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53572 PE), fluorescein (sc-53572 FITC), Alexa Fluor® 488 (sc-53572 AF488), Alexa Fluor® 546 (sc-53572 AF546), Alexa Fluor® 594 (sc-53572 AF594) or Alexa Fluor® 647 (sc-53572 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-53572 AF680) or Alexa Fluor® 790 (sc-53572 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

CD155 (SKII.4) is recommended for detection of CD155 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and flow cytometry (1 µg per 1 x 10^6 cells).

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.

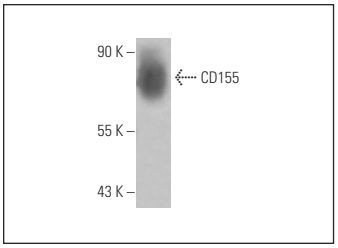
Molecular Weight of CD155: 70 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HeLa whole cell lysate: sc-2200 or MIA PaCa-2 cell lysate: sc-2285

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



CD155 (SKII.4): sc-53572. Western blot analysis of CD155 expression in A549 whole cell lysate under non-reducing conditions.

SELECT PRODUCT CITATIONS

1. Moiseeva, E.P., et al. 2013. CADM1 is a key receptor mediating human mast cell adhesion to human lung fibroblasts and airway smooth muscle cells. PLoS ONE 8: e61579.
2. Zitti, B., et al. 2017. Innate immune activating ligand SUMOylation affects tumor cell recognition by NK cells. Sci. Rep. 7: 10445.

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 for detailed protocols and support products.