

CD52 (HI186): sc-51560

BACKGROUND

CD52 is a glycosylphosphatidylinositol (GPI)-linked surface antigen present at high levels on epithelial cells lining the male reproductive tract, thymocytes, lymphocytes, monocytes and macrophages. It is also present at variable levels on lymphoid malignancies. During sperm maturation, spermatozoa passing through the genital tract acquire CD52 that is shed from the epithelial cell lining into seminal plasma. CD52 is detectable on the surface of epididymal sperm and in the ejaculate but not on spermatogenic cells or testicular spermatozoa. The peptide backbone of CD52, which consists of 12 amino acids, is considered a mere scaffold for posttranslational modifications, such as GPI-anchor and N-glycosylation.

REFERENCES

1. Yeung, C., et al. 1997. Human epididymal secreted protein CD52 on ejaculated spermatozoa: correlations with semen characteristics and the effect of its antibody. *Mol. Hum. Reprod.* 3: 1045-1051.
2. Domagala, A. and Kurpisz, M. 2001. CD52 antigen—a review. *Med. Sci. Monit.* 7: 325-331.
3. Kumar, S., et al. 2003. Expression of CD52 on plasma cells in plasma cell proliferative disorders. *Blood* 102: 1075-1077.

CHROMOSOMAL LOCATION

Genetic locus: CD52 (human) mapping to 1p36.11.

SOURCE

CD52 (HI186) is a mouse monoclonal antibody raised against tonsil of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD52 (HI186) is available conjugated either phycoerythrin (sc-51560 PE, 100 tests in 2 ml) or fluorescein (sc-51560 FITC, 100 tests in 2 ml), for WB (RGB), IF, IHC(P) and FCM.

APPLICATIONS

CD52 (HI186) is recommended for detection of precursor and mature CD52 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for CD52 siRNA (h): sc-44666, CD52 shRNA Plasmid (h): sc-44666-SH and CD52 shRNA (h) Lentiviral Particles: sc-44666-V.

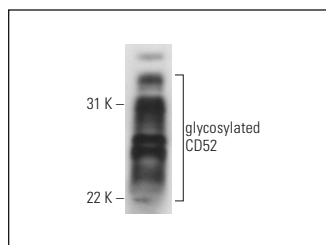
Molecular Weight of CD42: 20-28 kDa.

Positive Controls: GA-10 whole cell lysate: sc-364230.

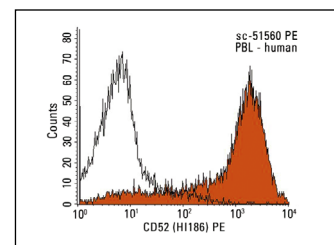
RECOMMENDED SUPPORT REAGENTS

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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



CD52 (HI186): sc-51560. Western blot analysis of glycosylated CD52 expression in GA-10 whole cell lysate.



CD52 (HI186): sc-51560. Indirect FCM analysis of human peripheral blood leukocytes stained with CD52 (HI186), followed by PE-conjugated goat anti-mouse IgG_{2b}: sc-3766. Black line histogram represents the isotype control, normal mouse IgG_{2b}: sc-3879.

SELECT PRODUCT CITATIONS

1. Henry, S., et al. 2021. Characterization of gene expression signatures for the identification of cellular heterogeneity in the developing mammary gland. *J. Mammary Gland Biol. Neoplasia* 26: 43-66.
2. Li, K., et al. 2023. Single-cell analysis reveals the chemotherapy-induced cellular reprogramming and novel therapeutic targets in relapsed/refractory acute myeloid leukemia. *Leukemia* 37: 308-325.

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.