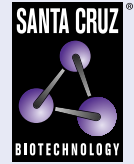


## CD164 (H-4): sc-271179



The Power to Question

## BACKGROUND

CD164 is a mucin-like cell surface glycoprotein that facilitates adhesion of CD34<sup>+</sup> cells and serves as a negative regulator of hematopoietic progenitor cell proliferation. Human CD164 in CD34<sup>+</sup>CD38<sup>+</sup> hematopoietic progenitor and epithelial cell lines localizes to endosomes and lysosomes, with low concentrations also appearing at the cell surface.

## REFERENCES

1. Watt, S.M., et al. 1998. CD164, a novel sialomucin on CD34<sup>+</sup> and erythroid subsets, is located on human chromosome 6q21. *Blood* 92: 849-866.
2. Doyonnas, R., et al. 2000. CD164 monoclonal antibodies that block hematopoietic progenitor cell adhesion and proliferation interact with the first mucin domain of the CD164 receptor. *J. Immunol.* 165: 840-851.

## CHROMOSOMAL LOCATION

Genetic locus: CD164 (human) mapping to 6q21; Cd164 (mouse) mapping to 10 B2.

## SOURCE

CD164 (H-4) is a mouse monoclonal antibody raised against amino acids 1-123 mapping at the N-terminus of CD164 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD164 (H-4) is available conjugated to agarose (sc-271179 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271179 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271179 PE), fluorescein (sc-271179 FITC), Alexa Fluor® 488 (sc-271179 AF488), Alexa Fluor® 546 (sc-271179 AF546), Alexa Fluor® 594 (sc-271179 AF594) or Alexa Fluor® 647 (sc-271179 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271179 AF680) or Alexa Fluor® 790 (sc-271179 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

CD164 (H-4) is recommended for detection of CD164 of mouse, rat and 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 CD164 siRNA (h): sc-44677, CD164 siRNA (m): sc-44678, CD164 shRNA Plasmid (h): sc-44677-SH, CD164 shRNA Plasmid (m): sc-44678-SH, CD164 shRNA (h) Lentiviral Particles: sc-44677-V and CD164 shRNA (m) Lentiviral Particles: sc-44678-V.

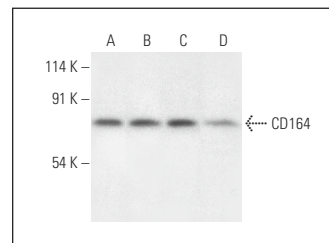
Molecular Weight of CD164: 80 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132, HL-60 whole cell lysate: sc-2209 or COLO 320DM cell lysate: sc-2226.

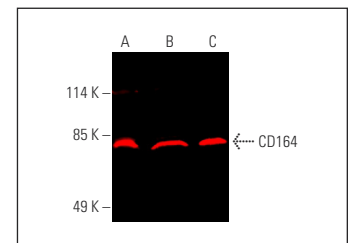
## RECOMMENDED SUPPORT REAGENTS

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.

## DATA



CD164 (H-4): sc-271179. Western blot analysis of CD164 expression in Jurkat nuclear extract (A) and T-47D (B), HL-60 (C) and HEL 92.1.7 (D) whole cell lysates.



CD164 (H-4): sc-271179. Near-infrared western blot analysis of CD164 expression in K-562 (A), TF-1 (B) and COLO 320DM (C) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 790: sc-516181.

## SELECT PRODUCT CITATIONS

1. Norwood, J.N., et al. 2019. Anatomical basis and physiological role of cerebrospinal fluid transport through the murine cribriform plate. *Elife* 8: e44278.
2. Mancarella, C., et al. 2020. Insulin-like growth factor 2 mRNA-binding protein 3 modulates aggressiveness of Ewing sarcoma by regulating the CD164-CXCR4 axis. *Front. Oncol.* 10: 994.
3. Al Hosni, R., et al. 2022. Reprogramming bone progenitor identity and potency through control of collagen density and oxygen tension. *iScience* 25: 104059.
4. Niemann, T., et al. 2023. Analyzing sex-specific dimorphism in human skeletal stem cells. *Cells* 12: 2683.

## 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](http://www.scbt.com) for detailed protocols and support products.