



## CD164 (S-20): sc-27802

### 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.
3. Watt, S.M., et al. 2000. Functionally defined CD164 epitopes are expressed on CD34<sup>+</sup> cells throughout ontogeny but display distinct distribution patterns in adult hematopoietic and nonhematopoietic tissues. *Blood* 95: 3113-3124.
4. Chan, J.Y., et al. 2001. Relationship between novel isoforms, functionally important domains, and subcellular distribution of CD164/endolyn. *J. Biol. Chem.* 276: 2139-2152.
5. Lee, Y.N., et al. 2001. Identification of a role for the sialomucin CD164 in myogenic differentiation by signal sequence trapping in yeast. *Mol. Cell. Biol.* 21: 7696-7706.
6. McGuckin, C.P., et al. 2003. Colocalization analysis of sialomucins CD34 and CD164. *Stem Cells* 21: 162-170.
7. LocusLink Report (LocusID: 8763). <http://www.ncbi.nlm.nih.gov/LocusLink/>

### CHROMOSOMAL LOCATION

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

### SOURCE

CD164 (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of CD164 of mouse origin.

### PRODUCT

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

Blocking peptide available for competition studies, sc-27802 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### STORAGE

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

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

### APPLICATIONS

CD164 (S-20) is recommended for detection of CD164 of mouse and rat 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CD164 siRNA (m): sc-44678, CD164 shRNA Plasmid (m): sc-44678-SH and CD164 shRNA (m) Lentiviral Particles: sc-44678-V.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### RESEARCH USE

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