

CD163 (K-18): sc-18796

BACKGROUND

CD163, also designated M130, is a macrophage-associated antigen that is a member of the scavenger receptor cysteine-rich (SRCR) superfamily. It is highly expressed on macrophages and to a lesser extent on monocytes. The acute phase-regulated and signal-inducing macrophage protein, CD163, is a receptor that scavenges hemoglobin by mediating endocytosis of haptoglobin-hemoglobin complexes. CD163 binds only haptoglobin and hemoglobin in complex, which indicates the exposure of a receptor-binding neopeptide. The receptor-ligand interaction is calcium-dependent and of high affinity. The existence of several CD163 isoforms, which differ in the structure of their cytoplasmic domains and putative phosphorylation sites, suggests that these isoforms also differ in their signaling mechanism. The gene which encodes CD163 maps to human chromosome 12p13.31.

CHROMOSOMAL LOCATION

Genetic locus: CD163 (human) mapping to 12p13.31; Cd163 (mouse) mapping to 6 F2.

SOURCE

CD163 (K-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CD163 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-18796 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

CD163 (K-18) is recommended for detection of CD163 of mouse, rat and, to a lesser extent, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CD163 siRNA (h): sc-42834, CD163 siRNA (m): sc-42835, CD163 shRNA Plasmid (h): sc-42834-SH, CD163 shRNA Plasmid (m): sc-42835-SH, CD163 shRNA (h) Lentiviral Particles: sc-42834-V and CD163 shRNA (m) Lentiviral Particles: sc-42835-V.

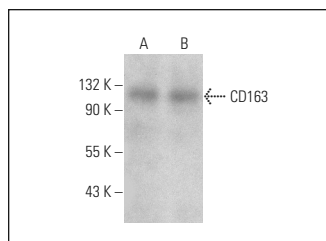
Molecular Weight of CD163: 130 kDa.

Positive Controls: mouse spleen extract: sc-2391 or mouse thymus extract: sc-2406.

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.

DATA



CD163 (K-18): sc-18796. Western blot analysis of CD163 expression in mouse spleen (A) and mouse thymus (B) tissue extracts.

SELECT PRODUCT CITATIONS

1. Akkoyunlu, G., et al. 2004. Distribution patterns of leucocyte subpopulations expressing different cell markers in the cumulus-oocyte complexes of pregnant and pseudopregnant mice. *Reprod. Fertil. Dev.* 15: 389-395.
2. Kim, W.K., et al. 2006. CD163 identifies perivascular macrophages in normal and viral encephalitic brains and potential precursors to perivascular macrophages in blood. *Am. J. Pathol.* 168: 822-834.
3. Elzarrad, K., et al. 2009. Early incorporated endothelial cells as origin of metastatic tumor vasculogenesis. *Clin. Exp. Metastasis* 26: 589-598.
4. Fernández, R., et al. 2011. Lipopolysaccharide signaling in the carotid chemoreceptor pathway of rats with sepsis syndrome. *Respir. Physiol. Neurobiol.* 175: 336-348.
5. Wen, G., et al. 2015. A novel role of matrix metalloproteinase-8 in macrophage differentiation and polarization. *J. Biol. Chem.* 290: 19158-19172.

RESEARCH USE

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



Try **CD163 (ED2): sc-58965** or **CD163 (GHI/61): sc-20066**, our highly recommended monoclonal alternatives to CD163 (K-18). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **CD163 (ED2): sc-58965**.