SANTA CRUZ BIOTECHNOLOGY, INC.

CD88 (M-19): sc-7090

BACKGROUND

CD88, also known as C5a receptor (C5aR), is a G protein-coupled integral membrane protein. CD88, which is expressed on neutrophils, monocytes, macrophages, hepatocytes and mast cells, as well as on various epithelial and endothelial cells, serves as a receptor for the inflammatory peptide C5a. Research studies suggest a role for CD88 in the inflammatory response. The binding of C5a to CD88 has been shown to elicit increased production of acute phase proteins in liver. In brain, an increased production of CD88 has been shown to be associated with inflammation. Research also indicates a role for C5a/C5aR in the pathogenesis of rheumatoid arthritis, as well as a heightened responsiveness of human bronchial epithelial cells (HBECs) to C5a upon exposure of these cells to cigarette smoke and other environmental irritants.

REFERENCES

1. Hugli, T.E., et al. 1978. Anaphylatoxins: C3a and C5a. Adv. Immunol. 26: 1-53.
2. Gerard, N.P., et al. 1991. The chemotactic receptor for human C5a anaphylatoxin. Nature 349: 614-617.
3. Haviland, D.L., et al. 1995. Cellular expression of the C5a anaphylatoxin receptor (C5aR): demon-stration of C5aR on nonmyeloid cells of the liver and lung. J. Immunol. 154: 1861-1869.
4. Fureder, W., et al. 1995. Differential expression of complement receptors on human basophils and mast cells. Evidence for mast cell heterogeneity and CD88/C5aR expression on skin mast cells. J. Immunol. 155: 3152-3160.
5. Elsner, J., et al. 1996. Detection of C5a receptors on human eosinophils and inhibition of eosinophil effector functions by anti-C5a receptor (CD88) antibodies. Eur. J. Immunol. 26: 1560-1564.

CHROMOSOMAL LOCATION

Genetic locus: C5ar1 (mouse) mapping to 7 A2.

SOURCE

CD88 (M-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of CD88 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-7090 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.

RESEARCH USE

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

APPLICATIONS

CD88 (M-19) is recommended for detection of CD88 of mouse 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 CD88 siRNA (m): sc-42814, CD88 shRNA Plasmid (m): sc-42814-SH and CD88 shRNA (m) Lentiviral Particles: sc-42814-V.

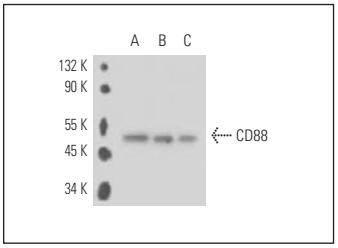
Molecular Weight of CD88: 49 kDa.

Positive Controls: MCP-5 cell lysate, AMJ 2 C8 cell lysate and C4 cell lysate.

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



CD88 (M-19): sc-7090. Western blot analysis CD88 expression in MCP-5 (**A**), AMJ2-C8 (**B**) and c4 (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Jagannath, C., et al. 2000. Hypersusceptibility of A/J mice to tuberculosis is in part due to a deficiency of the fifth complement component (C5). Scand. J. Immunol. 52: 369-379.
2. Stupka, N., et al. 2004. The calcineurin signal transduction pathway is essential for successful muscle regeneration in MDX dystrophic mice. Acta Neuropathol. 107: 299-310.
3. Stupka, N., et al. 2006. Differential calcineurin signalling activity and regeneration efficacy in diaphragm and limb muscles of dystrophic MDX mice. Neuromuscul. Disord. 16: 337-346.