SANTA CRUZ BIOTECHNOLOGY, INC.

CD88 (W17/1): sc-53796

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. and Muller-Eberhard, H.J. 1978. Anaphylatoxins: C3a and C5a. Adv. Immunol. 26: 1-53.
2. Gerard, N.P. and Gerard, C. 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): demonstration 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.
6. Gasque, P., et al. 1997. Expression of the receptor for complement C5a (CD88) is upregulated on reactive astrocytes, microglia and endothelial cells in the inflamed human central nervous system. Am. J. Pathol. 150: 31-41.
7. Kiener, H.P., et al. 1998. Expression of the C5a receptor (CD88) on synovial mast cells in patients with rheumatoid arthritis. Arthritis Rheum. 41: 233-245.
8. Floreani, A.A., et al. 1998. Expression of receptors for C5a anaphylatoxin (CD88) on human bronchial epithelial cells: enhancement of C5a-mediated release of IL-8 upon exposure to cigarette smoke. J. Immunol. 160: 5073-5081.
9. Nataf, S., et al. 1999. Human T cells express the C5a receptor and are chemoattracted to C5a. J. Immunol. 162: 4018-4023.

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 for detailed protocols and support products.

CHROMOSOMAL LOCATION

Genetic locus: C5AR1 (human) mapping to 19q13.32.

SOURCE

CD88 (W17/1) is a mouse monoclonal antibody raised against a peptide mapping at the N-terminus of CD88 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD88 (W17/1) is available conjugated to either phycoerythrin (sc-53796 PE) or fluorescein (sc-53796 FITC), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM.

APPLICATIONS

CD88 (W17/1) is recommended for detection of CD88 of human origin by 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 10^6 cells).

Suitable for use as control antibody for CD88 siRNA (h): sc-35031, CD88 shRNA Plasmid (h): sc-35031-SH and CD88 shRNA (h) Lentiviral Particles: sc-35031-V.

Molecular Weight of CD88: 49 kDa.

SELECT PRODUCT CITATIONS

1. Fuke, N., et al. 2018. *Lactobacillus brevis* KB290 with vitamin A ameliorates murine intestinal inflammation associated with the increase of $CD11c^+$ macrophage/$CD103^-$ dendritic cell ratio. Inflamm. Bowel Dis. 24: 317-331.

RESEARCH USE

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