

p-CD88 (32-G1): sc-53793

BACKGROUND

CD88, also called C5a receptor (C5aR), is a G protein-coupled integral membrane protein. CD88 is expressed on neutrophils, monocytes, macrophages, hepatocytes and mast cells, as well as on various epithelial and endothelial cells. CD88 serves as a receptor for the inflammatory peptide C5a. 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. p-CD88 is phosphorylated at Serines 332, 334 and 338. Upon binding of C5a, CD88 undergoes rapid phosphorylation on serine residues present in the C-terminal region, immediately followed by desensitization and internalization

REFERENCES

- Hugli, T.E. and Muller-Eberhard, H.J. 1978. Anaphylatoxins: C3a and C5a. *Adv. Immunol.* 26: 1-53.
- Gerard, N.P. and Gerard, C. 1991. The chemotactic receptor for human C5a anaphylatoxin. *Nature* 349: 614-617.
- Haviland, D.L., McCoy, R.L., Whitehead, W.T., Akama, H., Molmenti, E.P., Brown, A., Haviland, J.C., Parks, W.C., Perlmutter, D.H. and Wetsel, R.A. 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.
- Fureder, W., Agis, H., Willheim, M., Bankl, H.C., Maier, U., Kishi, K., Muller, M.R., Czerwenka, K., Radaszkiewicz, T., Butterfield, J.H., Klappacher, G.W., Sperr, W.R., Oppermann, M., Lechner, K. and Valent, P. 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.
- Elsner, J., Oppermann, M. and Kapp, A. 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.
- Gasque, P., Singhrao, S.K., Neal, J.W., Gotze, O. and Morgan, B.P. 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.

CHROMOSOMAL LOCATION

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

SOURCE

p-CD88 (32-G1) is a mouse monoclonal antibody raised against synthetic CD88 corresponding to 18 C-terminal amino acids phosphorylated at Ser 332, 334 and 338 of CD88 of human origin.

STORAGE

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

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

p-CD88 (32-G1) is recommended for detection of Ser 334 phosphorylated CD88 of 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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.

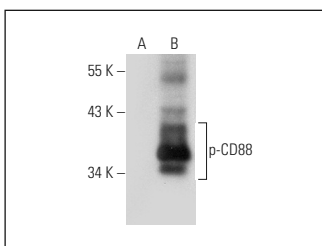
Positive Controls: CD88 (h): 293T Lysate: sc-175352.

RECOMMENDED SUPPORT REAGENTS

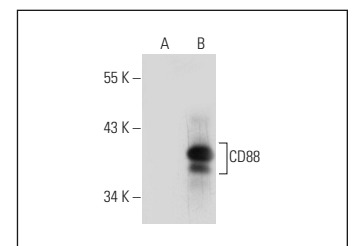
To ensure optimal results, the following support reagents are recommended:

- 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, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.
- Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
- 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



p-CD88 (32-G1): sc-53793. Western blot analysis of CD88 phosphorylation in non-transfected: sc-117752 (A) and human CD88 transfected: sc-175352 (B) 293T whole cell lysates.



p-CD88 (32-G1): sc-53793. Western blot analysis of CD88 phosphorylation in non-transfected: sc-117752 (A) and human CD88 transfected: sc-175354 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Zimmermann-Meisse, G., Prévost, G. and Jover, E. 2017. Above and beyond C5a receptor targeting by staphylococcal leucotoxins: retrograde transport of panton-valentine leucocidin and γ-hemolysin. *Toxins* 9: 41.

RESEARCH USE

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