



CD93 (E-20): sc-22997

BACKGROUND

The CD93 antigen is a 652 amino acid cell-surface glycoprotein expressed by monocytes, >neutrophils, platelets, microglia, and endothelial cells. CD93 was originally thought to be a putative receptor for the complement component C1q, a serum glycoprotein which plays an integral role in the activation of the classical pathway in response to immune complexes. As a result, in the literature the CD93 gene product has also been referred to as C1QR1 and C1qRp as well as MXRA4 (matrix-remodeling-associated protein 4). Recent studies >suggest that the CD93 antigen plays a role in intercellular adhesion and in clearance of apoptotic cells. CD93 is a >heavily O-glycosylated, type I transmembrane protein consisting of an N-terminal domain with homology to C-type lectin domains, a tandem array of EGF-like domains, a single transmembrane domain and a short cytoplasmic tail.

REFERENCES

1. Malhotra, R., Willis, A.C., Jensenius, J.C., Jackson, J. and Sim, R.B. 1993. Structure and homology of human C1q receptor (collectin receptor). *Immunology* 78: 341-348.
2. Nepomuceno, R.R. and Tenner, A.J. 1998. C1qRP, the C1q receptor that enhances phagocytosis, is detected specifically in human cells of myeloid lineage, endothelial cells, and platelets. *J. Immunol.* 160: 1929-1935.
3. Nepomuceno, R.R., Ruiz, S., Park, M. and Tenner, A.J. 1999. C1qRP is a heavily O-glycosylated cell surface protein involved in the regulation of phagocytic activity. *J. Immunol.* 162: 3583-3589.
4. Danet, G.H., Luongo, J.L., Butler, G., Lu, M.M., Tenner, A.J., Simon, M.C. and Bonnet, D.A. 2002. C1qRp defines a new human stem cell population with hematopoietic and hepatic potential. *Proc. Natl. Acad. Sci. USA* 99: 10441-10445.
5. McGreal, E.P., Ikewaki, N., Akatsu, H., Morgan, B.P. and Gasque, P. 2002. Human C1qRp is identical with CD93 and the mNI-11 antigen but does not bind C1q. *J. Immunol.* 168: 5222-5232.
6. Steinberger, P., Szekeres, A., Wille, S., Stöckl, J., Selenko, N., Prager, E., Staffler, G., Madic, O., Stockinger, H. and Knapp, W. 2002. Identification of human CD93 as the phagocytic C1q receptor (C1qRp) by expression cloning. *J. Leukoc. Biol.* 71: 133-140.
7. Bohlson, S.S., Zhang, M., Ortiz, C.E. and Tenner, A.J. 2005. CD93 interacts with the PDZ domain-containing adaptor protein GIPC: implications in the modulation of phagocytosis. *J. Leukoc. Biol.* 77: 80-89.

CHROMOSOMAL LOCATION

Genetic locus: Cd93 (mouse) mapping to 2 G3.

SOURCE

CD93 (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of CD93 of mouse 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 IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-22997 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CD93 (E-20) is recommended for detection of CD93 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 CD93 siRNA (m): sc-106980, CD93 shRNA Plasmid (m): sc-106980-SH and CD93 shRNA (m) Lentiviral Particles: sc-106980-V.

Molecular Weight of CD93: 126 kDa.

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) 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.