

OX2R (6A389): sc-71765

BACKGROUND

OX2 (CD200, MOX2), a member of the immunoglobulin superfamily (IgSF), is a 248-residue cell surface glycoprotein that is expressed in lymphoid cells, neurons and endothelium. OX2 receptor (OX2R) is a membrane protein with up to 70% of its weight derived from N-linked glycosylation, and it is primarily expressed in lymphoid and neuronal tissue. Phylogenetic analysis of OX2R with respect to other leukocyte IgSF glycoproteins suggests that OX2R and OX2 share a common ancestral protein. The cytoplasmic portion of OX2R contains NPXY motifs that are known to interact with PTB/PID binding domains. The interaction between OX2 and OX2R may contribute to pathways that suppress and limit macrophage induced inflammatory damage in tissue.

REFERENCES

1. McCaughan, G.W., Clark, M.J., Hurst, J., Grosveld, F. and Barclay, A.N. 1987. The gene for MRC OX2 membrane glycoprotein is localized on human chromosome 3. *Immunogenetics* 25: 133-135.
2. Wright, G.J., Puklavec, M.J., Willis, A.C., Hoek, R.M., Sedgwick, J.D., Brown, M.H. and Barclay, A.N. 2000. Lymphoid/neuronal cell surface OX2 glycoprotein recognizes a novel receptor on macrophages implicated in the control of their function. *Immunity* 13: 233-242.
3. Hoek, R.M., Ruuls, S.R., Murphy, C.A., Wright, G.J., Goddard, R., Zurawski, S.M., Blom, B., Homola, M.E., Streit, W.J., Brown, M.H., Barclay, A.N. and Sedgwick, J.D. 2000. Downregulation of the macrophage lineage through interaction with OX2 (CD200). *Science* 290: 1768-1771.
4. Gorczynski, R.M., Yu, K. and Clark, D. 2000. Receptor engagement on cells expressing a ligand for the tolerance-inducing molecule OX2 induces an immunoregulatory population that inhibits alloreactivity *in vitro* and *in vivo*. *J. Immunol.* 165: 4854-4860.
5. Dick, A.D., Broderick, C., Forrester, J.V. and Wright, G.J. 2001. Distribution of OX2 antigen and OX2 receptor within retina. *Invest. Ophthalmol. Vis. Sci.* 42: 170-176.

CHROMOSOMAL LOCATION

Genetic locus: CD200R1 (human) mapping to 3q13.2.

SOURCE

OX2R (6A389) is a mouse monoclonal antibody raised against fusion protein hCD200RCD4d3+4 of human origin.

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. Also available azide-free for blocking, sc-71765 L, 200 µg/0.1 ml.

OX2R (6A389) is available conjugated to either phycoerythrin (sc-71765 PE) or fluorescein (sc-71765 FITC), 200 µg/ml, for IF, IHC(P) and FCM.

STORAGE

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

APPLICATIONS

OX2R (6A389) is recommended for detection of OX2R of human origin by flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for OX2R siRNA (h): sc-42956, OX2R shRNA Plasmid (h): sc-42956-SH and OX2R shRNA (h) Lentiviral Particles: sc-42956-V.

Molecular Weight of OX2R: 60-80 kDa.

SELECT PRODUCT CITATIONS

1. Lupino, E., Buccinnà, B., Ramondetti, C., Lomartire, A., De Marco, G., Ricotti, E., Tovo, P.A., Rinaudo, M.T. and Piccinini, M. 2010. In CD28-co-stimulated human naïve CD4 T cells, I-κB kinase controls the expression of cell cycle regulatory proteins via interleukin-2-independent mechanisms. *Immunology* 131: 231-241.

RESEARCH USE

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

PROTOCOLS

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