

OX2 (R-17): sc-14388

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. McMaster, W.R., et al. 1979. Identification of Ia glycoproteins in rat thymus and purification from rat spleen. *Eur. J. Immunol.* 9: 426-433.
2. McCaughan, G.W., et al. 1987. The gene for MRC OX2 membrane glycoprotein is localized on human chromosome 3. *Immunogenetics* 25: 133-135.
3. Wright, G.J., et al. 2000. Lymphoid/neuronal cell surface OX2 glycoprotein recognizes a novel receptor on macrophages implicated in the control of their function. *Immunity* 13: 233-242.
4. Hoek, R.M., et al. 2000. Downregulation of the macrophage lineage through interaction with OX2 (CD200). *Science* 290: 1768-1771.
5. Gorczynski, R.M., et al. 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.
6. Nathan, C., et al. 2001. Putting the brakes on innate immunity: a regulatory role for CD200? *Nat. Immunol.* 2: 17-19.
7. Dick, A.D., et al. 2001. Distribution of OX2 antigen and OX2 receptor within retina. *Invest. Ophthalmol. Vis. Sci.* 42: 170-176.

CHROMOSOMAL LOCATION

Genetic locus: CD200 (human) mapping to 3q13.2; Cd200 (mouse) mapping to 16 B5.

SOURCE

OX2 (R-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of OX2 of rat 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-14388 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.

APPLICATIONS

OX2 (R-17) is recommended for detection of OX2 glycoprotein of mouse, rat and, to a lesser extent, 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)], 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 OX2 siRNA (h): sc-42954, OX2 siRNA (m): sc-42955, OX2 shRNA Plasmid (h): sc-42954-SH, OX2 shRNA Plasmid (m): sc-42955-SH, OX2 shRNA (h) Lentiviral Particles: sc-42954-V and OX2 shRNA (m) Lentiviral Particles: sc-42955-V.

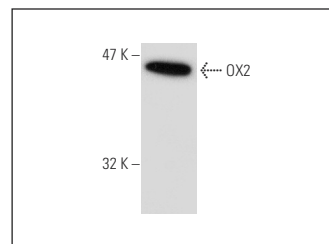
Molecular Weight of OX2: 41-47 kDa.

Positive Controls: J774.A1 cell lysate: sc-3802, mouse brain extract: sc-2253 or IB4 whole cell lysate: sc-364780.

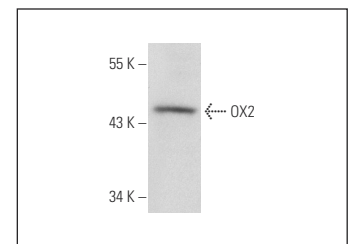
RECOMMENDED SECONDARY REAGENTS

o 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



OX2 (R-17): sc-14388. Western blot analysis of OX2 expression in J774.A1 whole cell lysate.



OX2 (R-17): sc-14388. Western blot analysis of OX2 expression in mouse brain tissue extract.

RESEARCH USE

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



Try **OX2 (OX90): sc-53100**, our highly recommended monoclonal alternative to OX2 (R-17).