

OX2 (6A387): sc-71764

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; 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

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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.
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5. Hoek, R.M., et al. 2000. Downregulation of the macrophage lineage through interaction with OX2 (CD200). *Science* 290: 1768-1771.
6. Dick, A.D., et al. 2001. Distribution of OX2 antigen and OX2 receptor within retina. *Invest. Ophthalmol. Vis. Sci.* 42: 170-176.
7. Wright, G.J., et al. 2001. The unusual distribution of the neuronal/lymphoid cell surface CD200 (OX2) glycoprotein is conserved in humans. *Immunology* 102: 173-179.
8. Nathan, C. and Muller, W.A. 2001. Putting the brakes on innate immunity: a regulatory role for CD200. *Nat. Immunol.* 2: 17-19.
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CHROMOSOMAL LOCATION

Genetic locus: Cd200 (mouse) mapping to 16 B5.

SOURCE

OX2 (6A387) is a rat monoclonal antibody raised against CD200 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_{2a} in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

OX2 (6A387) is available conjugated to either phycoerythrin (sc-71764 PE) or fluorescein (sc-71764 FITC), 200 µg/ml, for IF, IHC(P) and FCM.

APPLICATIONS

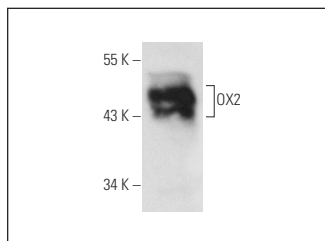
OX2 (6A387) is recommended for detection of OX2 a cell surface antigen of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for OX2 siRNA (m): sc-42955, OX2 siRNA (r): sc-270249, OX2 shRNA Plasmid (m): sc-42955-SH, OX2 shRNA Plasmid (r): sc-270249-SH, OX2 shRNA (m) Lentiviral Particles: sc-42955-V and OX2 shRNA (r) Lentiviral Particles: sc-270249-V.

Molecular Weight of OX2: 41-47 kDa.

Positive Controls: mouse brain extract: sc-2253, J774.A1 cell lysate: sc-3802 or CCRF-CEM cell lysate: sc-2225.

DATA



OX2 (6A387): sc-71764. Western blot analysis of OX2 expression in mouse brain tissue extract.

SELECT PRODUCT CITATIONS

1. Singh, V., et al. 2022. MicroRNA-129-5p-regulated microglial expression of the surface receptor CD200R1 controls neuroinflammation. *J. Biol. Chem.* 298: 101521.

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.