

Ox40 (A-20): sc-10943

BACKGROUND

Ox40 (also designated CD134 and Ox40R), is a member of the tumor necrosis factor receptor (TNFR) family. Ox40 is involved in coordinating CD4 T cell selection, migration, and cytokine differentiation in T helper (Th)1 and Th2 cells. Ox40 is also involved in the stimulation of T cells, T-dependent humoral response and generation of optimal CD4+ T cell responses *in vivo* and *in vitro*. Ox40 is expressed on activated CD4+ T lymphocytes, and its ligand, Ox40L, is found preferentially on activated B cells. Engagement of Ox40 with its ligand, Ox40L, delivers a strong costimulatory signal to effector T cells. Members of the TNFR superfamily are critically involved in the regulation of infections, inflammation, autoimmune diseases, and tissue homeostasis.

REFERENCES

- Smith, C.A., et al. 1994. The TNF receptor superfamily of cellular and viral proteins: activation, costimulation, and death. *Cell* 76: 959-962.
- Chen, A.I., et al. 1999. Ox40 ligand has a critical costimulatory role in dendritic cell:T cell interactions. *Immunity* 11: 689-698.
- Kopf, M., et al. 1999. Ox40 deficient mice are defective in Th cell proliferation but are competent in generating B cell and CTL responses after virus infection. *Immunity* 11: 699-708.
- Lane, P. 2000. Role of Ox40 signals in coordinating CD4 T cell selection, migration, and cytokine differentiation in T helper (Th)1 and Th2 cells. *J. Exp. Med.* 191: 201-206.
- Murata, K., et al. 2000. Impairment of antigen-presenting cell function in mice lacking expression of Ox40 ligand. *J. Exp. Med.* 191: 365-374.

CHROMOSOMAL LOCATION

Genetic locus: *Tnfrsf4* (mouse) mapping to 4 E2.

SOURCE

Ox40 (A-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Ox40 of mouse 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-10943 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.

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.

APPLICATIONS

Ox40 (A-20) is recommended for detection of Ox40 of mouse and rat 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 Ox40 siRNA (m): sc-42823, Ox40 shRNA Plasmid (m): sc-42823-SH and Ox40 shRNA (m) Lentiviral Particles: sc-42823-V.

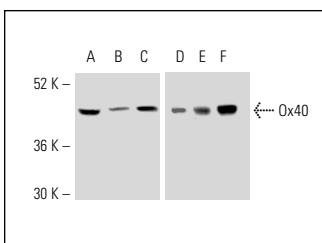
Molecular Weight of Ox40: 43 kDa.

Positive Controls: CTLL-2 cell lysate: sc-2242, RAW 264.7 whole cell lysate: sc-2211 or TK-1 whole cell lysate.

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) 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



Western blot analysis of Ox40 expression in CTLL-2 (A), RAW 264.7 (B) TK-1 (C), HEL 92.1.7 (D), Jurkat (E) and U-937 (F) whole cell lysates. Antibodies tested include Ox40 (A-20): sc-10943 (A-C) and Ox40 (G-14): sc-10938 (D-F).

SELECT PRODUCT CITATIONS

- Zheng, X., et al. 2010. TSLP and downstream molecules in experimental mouse allergic conjunctivitis. *Invest. Ophthalmol. Vis. Sci.* 51: 3076-3082.

MONOS
Satisfaction
Guaranteed

Try **Ox40 (3H1849): sc-71767**, our highly recommended monoclonal alternative to Ox40 (A-20).