

# Ox40 (H-133): sc-11403

## 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<sup>+</sup> T cell responses *in vivo* and *in vitro*. Ox40 is expressed on activated CD4<sup>+</sup> 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

1. Smith, C.A., et al. 1994. The TNF receptor superfamily of cellular and viral proteins: activation, costimulation, and death. *Cell* 76: 959-962.
2. Chen, A.I., et al. 1999. Ox40 ligand has a critical costimulatory role in dendritic cell:T cell interactions. *Immunity* 11: 689-698.
3. 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.
4. 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.
5. Murata, K., et al. 2000. Impairment of antigen-presenting cell function in mice lacking expression of Ox40 ligand. *J. Exp. Med.* 191: 365-374.
6. Morimoto, S., et al. 2000. CD134L engagement enhances human B cell Ig production: CD154/CD40, CD70/CD27, and CD134/CD134L interactions coordinately regulate T cell-dependent B cell responses. *J. Immunol.* 164: 4097-4104.

## CHROMOSOMAL LOCATION

Genetic locus: TNFRSF4 (human) mapping to 1p36.33; Tnfrsf4 (mouse) mapping to 4 E2.

## SOURCE

Ox40 (H-133) is a rabbit polyclonal antibody raised against amino acids 145-277 of Ox40 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## 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.

## APPLICATIONS

Ox40 (H-133) is recommended for detection of Ox40 of human and, to a lesser extent, 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 (h): sc-42822, Ox40 siRNA (m): sc-42823, Ox40 shRNA Plasmid (h): sc-42822-SH, Ox40 shRNA Plasmid (m): sc-42823-SH, Ox40 shRNA (h) Lentiviral Particles: sc-42822-V and Ox40 shRNA (m) Lentiviral Particles: sc-42823-V.

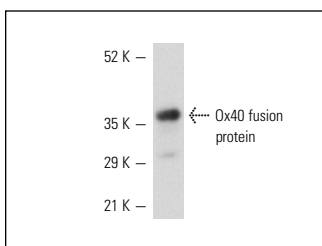
Molecular Weight of Ox40: 43 kDa.

Positive Controls: HEL 92.1.7 cell lysate: sc-2270, Jurkat whole cell lysate: sc-2204 or U-937 cell lysate : sc-2239.

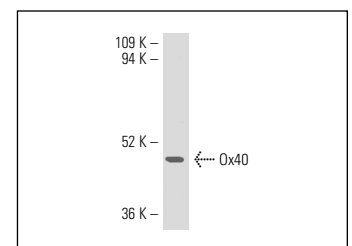
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Ox40 (H-133): sc-11403. Western blot analysis of human recombinant Ox40 fusion protein.



Ox40 (H-133): sc-11403. Western blot analysis of Ox40 expression in TK-1 whole cell lysate.

## SELECT PRODUCT CITATIONS

1. Ma, B.Y., et al. 2005. The expression and the regulatory role of Ox40 and 4-1BB heterodimer in activated human T cells. *Blood* 106: 2002-2010.

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Try **Ox40 (H-10): sc-376014**, our highly recommended monoclonal alternative to Ox40 (H-133). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Ox40 (H-10): sc-376014**.