

Ox40L (M-20): sc-10952

BACKGROUND

Ox40 ligand, Ox40L (also designated gp34), is a Type II membrane protein, due to the absence of a signal peptide. Ox40L, a member of the tumor necrosis factor (TNF) superfamily, is a costimulatory molecule involved in dendritic cell:T cell interactions, T cell homing, and B cell activation. Engagement of Ox40L with its receptor, Ox40, delivers a strong costimulatory signal to effector T cells. Ox40L is found preferentially on activated B cells. Its receptor, Ox40, is a member of the tumor necrosis factor receptor (TNFR) family that is expressed on activated T cells. Ox40L plays a critical role in antigen-specific T cell responses *in vivo* and in both the priming and effector phases of T cell activation when expressed on antigen-presenting cells (APCs).

REFERENCES

- Hahne, M., Kataoka, T., Schroter, M., Hofman, K., Irmiler, M., Bodmer, J.L., Schneider, P., Bornand, T., Holler, N., French, L.E., Sordat, B., Rimoldi, D. and Tschopp, J. 1998. APRIL, a new ligand of the tumor necrosis factor family, stimulates tumor cell growth. *J. Exp. Med.* 188: 1185-1190.
- Chen, A.I., McAdam, A.J., Buhlmann, J.E., Scott, S., Lupper, M.L., Jr., Greenfield, E.A., Baum, P.R., Fanslow, W.C., Calderhead, D.M., Freeman, G.J. and Sharpe, A.H. 1999. Ox40 ligand has a critical costimulatory role in dendritic cell:T cell interactions. *Immunity* 11: 689-698.
- Matsumura, Y., Hori, T., Kawamata, S., Imura, A. and Uchiyama, T. 1999. Intracellular signaling of gp34, the Ox40 ligand: induction of c-Jun and c-Fos mRNA expression through gp34 upon binding of its receptor, Ox40. *J. Immunol.* 163: 3007-3011.
- Weinberg, A.D., Rivera, M.M., Prell, R., Morris, A., Ramstad, T., Vetto, J.T., Urba, W.J., Alvord, G., Bunce, C. and Shields, J. 2000. Engagement of the Ox40 receptor *in vivo* enhances antitumor immunity. *J. Immunol.* 164: 2160-2169.
- Morimoto, S., Kanno, Y., Tanaka, Y., Tokano, Y., Hashimoto, H., Jacquot, S., Morimoto, C., Schlossman, S.F., Yagita, H., Okumura, K. and Kobata, T. 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.
- Murata, K., Ishii, N., Takano, H., Miura, S., Ndhlovu, L.C., Nose, M., Noda, T. and Sugamura, K. 2000. Impairment of antigen-presenting cell function in mice lacking expression of Ox40 ligand. *J. Exp. Med.* 191: 365-374.
- Malmstrom, V., Shipton, D., Singh, B., Al-Shamkhani, A., Puklavec, M.J., Barclay, A.N. and Powrie, F. 2001. CD134L expression on dendritic cells in the mesenteric lymph nodes drives colitis in T cell-restored SCID mice. *J. Immunol.* 166: 6972-6981.

CHROMOSOMAL LOCATION

Genetic locus: *Tnfsf4* (mouse) mapping to 1 H2.1.

SOURCE

Ox40L (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Ox40L 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-10952 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Ox40L (M-20) is recommended for detection of Ox40L of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 Ox40L siRNA (m): sc-42825, Ox40L shRNA Plasmid (m): sc-42825-SH and Ox40L shRNA (m) Lentiviral Particles: sc-42825-V.

Molecular Weight of Ox40L: 22 KDa.

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) 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.

SELECT PRODUCT CITATIONS

- Elmann, A., Sharabi, A., Dayan, M., Zinger, H., Ophir, R. and Mozes, E. 2007. Altered gene expression in mice with lupus treated with edratide, a peptide that ameliorates the disease manifestations. *Arthritis Rheum.* 56: 2371-2381.

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.



Try **Ox40L (OX89): sc-53105**, our highly recommended monoclonal alternative to Ox40L (M-20).