

Ox40 (BER-Act35): sc-20073

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 Th1 and Th2 cells. Ox40 is also involved in the stimulation of T cells, T cell-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.

CHROMOSOMAL LOCATION

Genetic locus: TNFRSF4 (human) mapping to 1p36.33.

SOURCE

Ox40 (BER-Act35) is a mouse monoclonal antibody raised against HuT 102 T cells.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Ox40 (BER-Act35) is available conjugated to agarose (sc-20073 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-20073 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-20073 PE), fluorescein (sc-20073 FITC), Alexa Fluor[®] 488 (sc-20073 AF488), Alexa Fluor[®] 546 (sc-20073 AF546), Alexa Fluor[®] 594 (sc-20073 AF594) or Alexa Fluor[®] 647 (sc-20073 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-20073 AF680) or Alexa Fluor[®] 790 (sc-20073 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Ox40 (BER-Act35) is recommended for detection of Ox40 of 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), immunohistochemistry (including paraffin-embedded sections) (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 Ox40 siRNA (h): sc-42822, Ox40 shRNA Plasmid (h): sc-42822-SH and Ox40 shRNA (h) Lentiviral Particles: sc-42822-V.

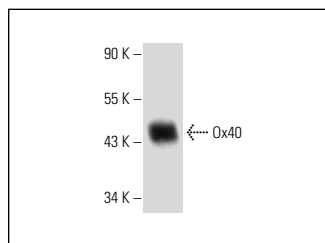
Molecular Weight of Ox40: 43 kDa.

Positive Controls: HuT 78 whole cell lysate: sc-2208, Jurkat whole cell lysate: sc-2204 or U-937 cell lysate: sc-2239.

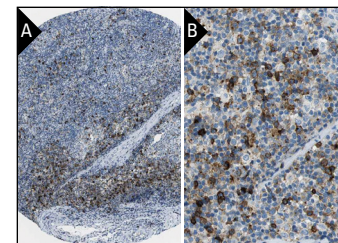
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Ox40 (BER-Act35): sc-20073. Western blot analysis of Ox40 expression in HuT 78 whole cell lysate.



Ox40 (BER-Act35): sc-20073. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing membrane and cytoplasmic staining of non-follicle cells at low (A) and high (B) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

SELECT PRODUCT CITATIONS

- Willett, B.J., et al. 2007. Probing the interaction between feline immunodeficiency virus and CD134 by using the novel monoclonal antibody 7D6 and the CD134 (Ox40) ligand. *J. Virol.* 81: 9665-9679.
- Domingos, P.L., et al. 2012. OX40⁺ T lymphocytes and IFN-γ are associated with American tegumentary leishmaniasis pathogenesis. *An. Bras. Dermatol.* 87: 851-855.
- Ilves, T. and Harvima, I.T. 2013. Ox40 ligand and Ox40 are increased in atopic dermatitis lesions but do not correlate with clinical severity. *J. Eur. Acad. Dermatol. Venereol.* 27: e197-e205.
- Bosisio, F.M., et al. 2020. Functional heterogeneity of lymphocytic patterns in primary melanoma dissected through single-cell multiplexing. *Elife* 9: e53008.
- Bolognesi, M.M., et al. 2021. Antibodies validated for routinely processed tissues stain frozen sections unpredictably. *Biotechniques* 70: 137-148.
- Yanagida, E., et al. 2022. Clinicopathological analysis of immunohistochemical expression of immune checkpoint molecules in follicular lymphoma. *Hematol. Oncol.* 40: 530-540.

RESEARCH USE

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

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