

GITRL (EB11): sc-53973

BACKGROUND

GITRL (glucocorticoid-induced TNF-related ligand), a polypeptide encoded by a human umbilical endothelial cell cDNA, is a member of the TNF (tumor necrosis factor) superfamily. GITRL has a type 2 transmembrane topology that is characteristic of the TNF family. The TNF superfamilies regulate diverse biological functions, including cell proliferation, differentiation and survival. GITRL is found on vascular endothelial cells and in several peripheral tissues (small intestine, ovary, testis and kidney), where it may modulate T lymphocyte survival. The GITR receptor recognizes GITRL and the two interact to regulate NF κ B activation. The ligand-receptor pair of GITRL-GITR protects cells against AICD (activation-induced cell death).

REFERENCES

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2. Gruss, H.J. and Dower, S.K. 1995. Tumor necrosis factor ligand superfamily: involvement in the pathology of malignant lymphomas. *Blood* 85: 3378-404.
3. Nocentini, G., Giunchi, L., Ronchetti, S., Krausz, L.T., Bartoli, A., Moraca, R., Migliorati, G. and Riccardi, C. 1997. A new member of the tumor necrosis factor/nerve growth factor receptor family inhibits T cell receptor-induced apoptosis. *Proc. Natl. Acad. Sci. USA* 94: 6216-6221.
4. Ashkenazi, A. and Dixit, V.M. 1998. Death receptors: signaling and modulation. *Science* 281: 1305-1308.
5. Gurney, A.L., Marsters, S.A., Huang, R.M., Pitti, R.M., Mark, D.T., Baldwin, D.T., Gray, A.M., Dowd, A.D., Brush, A.D., Heldens, A.D., Schow, A.D., Goddard, A.D., Wood, W.I., Baker, K.P., Godowski, P.J. and Ashkenazi, A. 1999. Identification of a new member of the tumor necrosis factor family and its receptor, a human ortholog of mouse GITR. *Curr. Biol.* 9: 215-218.
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CHROMOSOMAL LOCATION

Genetic locus: TNFSF18 (human) mapping to 1q25.1.

SOURCE

GITRL (EB11) is a mouse monoclonal antibody raised against recombinant full length GITRL of human origin.

PRODUCT

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

GITRL (EB11) is available conjugated to either phycoerythrin (sc-53973 PE) or fluorescein (sc-53973 FITC), 200 μ g/ml, for IF, IHC(P) 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

GITRL (EB11) is recommended for detection of GITRL of human 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), flow cytometry (1 μ g per 1 x 10⁶ cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for GITRL siRNA (h): sc-39827, GITRL shRNA Plasmid (h): sc-39827-SH and GITRL shRNA (h) Lentiviral Particles: sc-39827-V.

Molecular Weight of GITRL: 20 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

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.