

GITR (V-19): sc-34906

BACKGROUND

The tumor necrosis factor receptor (TNFR) superfamily represents a growing family of type I transmembrane glycoproteins that are involved in various cellular functions, including proliferation, differentiation and programmed cell death. These proteins share homology for cysteine-rich repeats in the extracellular ligand binding domain and an intracellular death domain. Members of the TNFR superfamily transmit signals through protein-protein interactions, and these signals can lead to the activation of either the caspase and jun kinase pathways, which promote cell death, or the NF κ B pathway, which results in cell survival. The glucocorticoid-induced tumor necrosis factor receptor family-related protein (GITR) is a member of the TNFR superfamily that is preferentially expressed in normal T lymphocytes from thymus, spleen and lymph nodes. GITR shares similarity with Ox40, 4-1BB and CD27 and is thought to inhibit T cell receptor-mediated cell death through the activation of the NF κ B signaling pathway.

REFERENCES

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2. Gruss, H.J., et al. 1996. Structural and biological features of the TNF receptor and TNF ligand superfamilies: interactive signals in the pathobiology of Hodgkin's disease. *Ann. Oncol.* 7: 19-26.
3. Nocentini, G., et al. 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. Baker, S.J., et al. 1998. Modulation of life and death by the TNF receptor superfamily. *Oncogene* 17: 3261-3270.
5. Gurney, A.L., et al. 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.
6. Riccardi, C., et al. 1999. Glucocorticoid hormone-induced modulation of gene expression and regulation of T cell death: role of GITR and GILZ, two dexamethasone-induced genes. *Cell Death Differ.* 6: 1182-1189.
7. Nocentini, G., et al. 2000. Gene structure and chromosomal assignment of mouse GITR, a member of the tumor necrosis factor/nerve growth factor receptor family. *DNA Cell Biol.* 19: 205-217.

CHROMOSOMAL LOCATION

Genetic locus: Tnfrsf18 (mouse) mapping to 4 E2.

SOURCE

GITR (V-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of GITR of mouse origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-34906 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GITR (V-19) is recommended for detection of GITR, GITR-C and GITR-B of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 GITR siRNA (m): sc-145408, GITR shRNA Plasmid (m): sc-145408-SH and GITR shRNA (m) Lentiviral Particles: sc-145408-V.

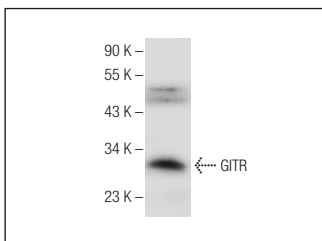
Molecular Weight of GITR: 25 kDa.

Positive Controls: I-11.15 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



GITR (V-19): sc-34906. Western blot analysis of GITR expression in I-11.15 whole cell lysate.

RESEARCH USE

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