

GITR (N-14): sc-5759

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.

CHROMOSOMAL LOCATION

Genetic locus: TNFRSF18 (human) mapping to 1p36.33.

SOURCE

GITR (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of GITR of human origin.

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-5759 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GITR (N-14) is recommended for detection of GITR of human 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), immunohistochemistry (including paraffin-embedded sections) (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 (h): sc-43806, GITR shRNA Plasmid (h): sc-43806-SH and GITR shRNA (h) Lentiviral Particles: sc-43806-V.

Molecular Weight of GITR: 25 kDa.

Positive Controls: CCRF-CEM cell lysate: sc-2225.

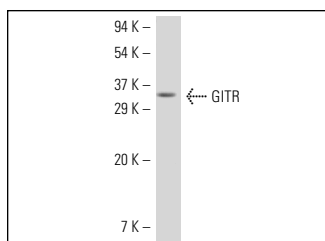
STORAGE

Store at 4 $^{\circ}$ C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

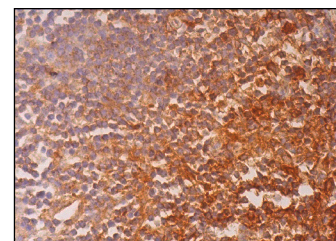
RESEARCH USE

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

DATA



GITR (N-14): sc-5759. Western blot analysis of GITR expression in CCRF-CEM whole cell lysate.



GITR (N-14): sc-5759. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing cytoplasmic and membrane staining of cells in germinal center and subset of cells in non-germinal center.

SELECT PRODUCT CITATIONS

- Veldman, C., et al. 2004. Type I regulatory T cells specific for desmoglein 3 are more frequently detected in healthy individuals than in patients with pemphigus vulgaris. *J. Immunol.* 172: 6468-6475.
- Bellinghausen, I., et al. 2005. Regulatory activity of human CD4 CD25 T cells depends on allergen concentration, type of allergen and atopy status of the donor. *Immunology* 116: 103-111.
- Veldman, C., et al. 2006. Inhibition of the transcription factor FOXP3 converts desmoglein 3-specific type 1 regulatory T cells into Th2-like cells. *J. Immunol.* 176: 3215-3222.
- Sitohy, B., et al. 2008. Basal lymphoid aggregates in ulcerative colitis colon: a site for regulatory T cell action. *Clin. Exp. Immunol.* 151: 326-333.
- Veldman, C., et al. 2009. Desmoglein 3-specific T regulatory 1 cells consist of two subpopulations with differential expression of the transcription factor FOXP3. *Immunology* 127: 40-49.

PROTOCOLS

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Try **GITR (621): sc-53972**, our highly recommended monoclonal alternative to GITR (N-14).