

Human TNFRSF18 ELISA Kit (GITR) ab100527

6 Images

Overview

Product name	Human TNFRSF18 ELISA Kit (GITR)
Detection method	Colorimetric
Sample type	Cell culture supernatant, Serum, Plasma
Assay type	Sandwich (quantitative)
Sensitivity	< 15 pg/ml
Range	13.7 pg/ml - 10000 pg/ml
Recovery	94 %

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	95.69	84% - 105%
Serum	94.18	83% - 104%
Plasma	92.75	82% - 102%

Assay duration Multiple steps standard assay

Species reactivity **Reacts with:** Human

Product overview

Abcam's TNFRSF18 (GITR) Human ELISA (Enzyme-Linked Immunosorbent Assay) kit is an *in vitro* enzyme-linked immunosorbent assay for the quantitative measurement of Human TNFRSF18 in serum, plasma, and cell culture supernatants.

This assay employs an antibody specific for Human TNFRSF18 coated on a 96-well plate. Standards and samples are pipetted into the wells and TNFRSF18 present in a sample is bound to the wells by the immobilized antibody. The wells are washed and biotinylated anti-Human TNFRSF18 antibody is added. After washing away unbound biotinylated antibody, HRP-conjugated streptavidin is pipetted to the wells. The wells are again washed, a TMB substrate solution is added to the wells and color develops in proportion to the amount of TNFRSF18 bound. The Stop Solution changes the color from blue to yellow, and the intensity of the color is measured at 450 nm.

Notes Optimization may be required with urine samples

Platform Microplate

Properties

Storage instructions

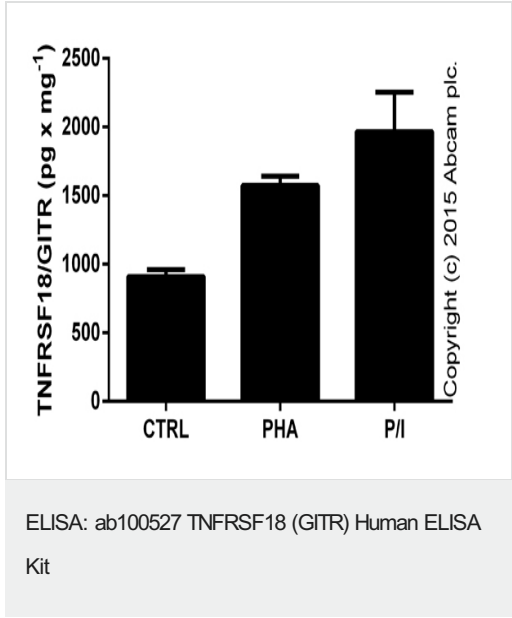
Store at -20°C. Please refer to protocols.

Components	1 x 96 tests
20X Wash Buffer	1 x 25ml
400X HRP-Streptavidin Concentrate	1 x 200µl
5X Assay Diluent B	1 x 15ml
Assay Diluent A	1 x 30ml
Biotinylated anti-Human TNFRSF18	2 vials
Recombinant Human TNFRSF18 Standard (lyophilized)	2 vials
Stop Solution	1 x 8ml
TMB One-Step Substrate Reagent	1 x 12ml
TNFRSF18 Microplate (12 x 8 wells)	1 unit

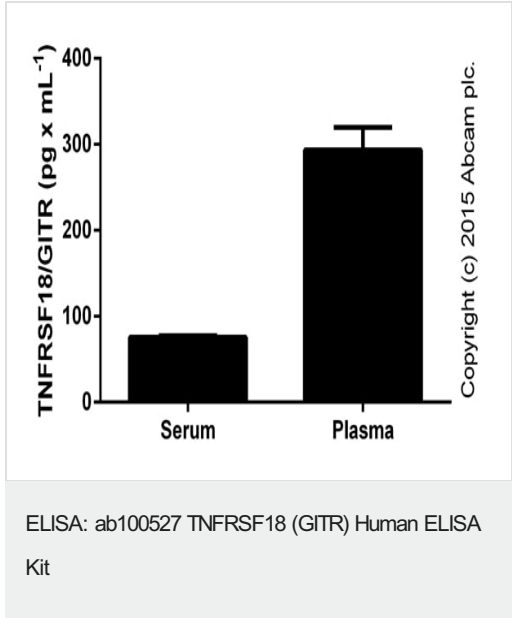
Relevance

TNFRSF18 or GITR (glucocorticoid-induced TNF receptor family-regulated gene) is a 25 kD TNF receptor superfamily member (also known as AITR and TNFRSF18) originally identified in the mouse by comparing untreated and dexamethasone-treated murine T cell hybridoma cells. Human GITR was subsequently identified by searching an expressed sequence tag database. GITR is expressed on activated lymphocytes and is upregulated by T cell receptor engagement. The cytoplasmic domain of GITR is homologous to CD40, 4-1BB and CD27 and has been shown to interact with TRAF 1-3, but not TRAF 5 or 6. GITR signaling has been shown to regulate T cell proliferation and TCR-mediated apoptosis, and to break immunological self-tolerance. GITR appears to be highly expressed on CD4+CD25+ T regulatory cells and has been shown to induce NF-κB activation through TRAF2/NIK signaling. GITR has been proposed to be involved in the development of regulatory T cells and to regulate the activity of Th1 subsets. GITR binds GITRL, a TNF superfamily ligand expressed on endothelial cells, dendritic cells, macrophages, and B cells.

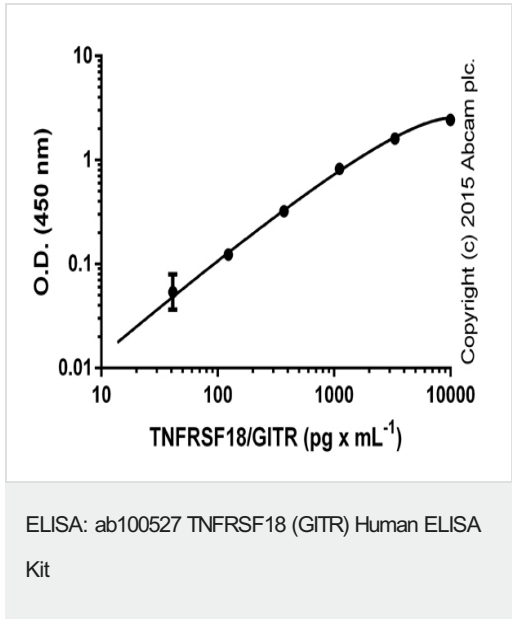
Images



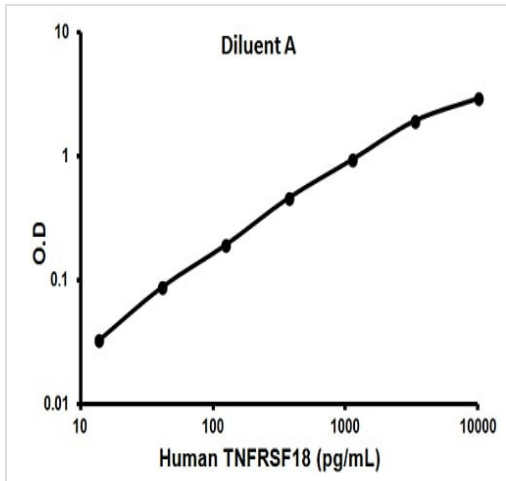
GITR measured in PBMC lysates (RIPA; 0.02-0.1 mg of proteins tested per well) after 72 hours of culture (1e6 cells per mL) in 0.1% DMSA (CTRL), 5 ug x mL⁻¹ PHA (Sigma) or in 50ng x mL⁻¹ PMA ([ab120297](#)) with 1uM ionomycin ([ab120116](#)) (P/I) (duplicates +/- SD).



GITR measured in undiluted human biological fluids (undiluted; duplicates +/- SD).

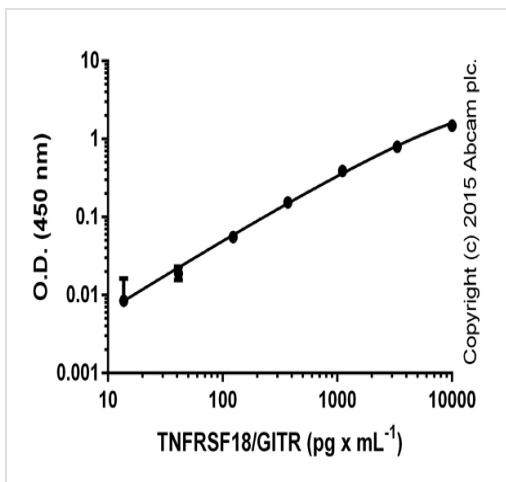


Standard curve in diluent B, with background signal subtracted (duplicates; +/- SD).



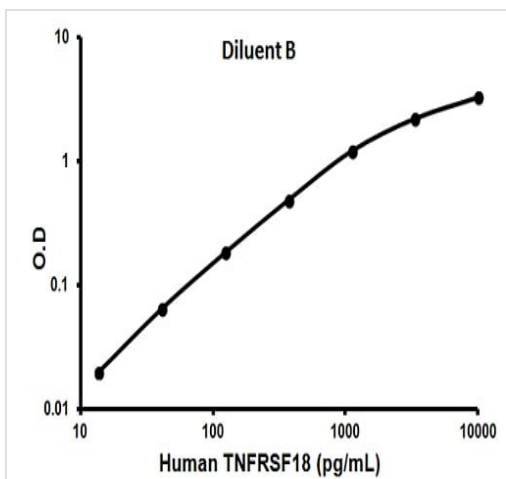
Typical standard curve

Representative standard curve using ab100527



Standard curve in diluent A, with background signal subtracted (duplicates; +/- SD).

ELISA: ab100527 TNFRSF18 (GITR) Human ELISA Kit



Typical standard curve

Representative standard curve using ab100527

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