

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human TGF-β RII in direct ELISAs and Western blots. In direct ELISAs, less than 5% cross-reactivity with recombinant mouse (rm) TGF-β RII and less than 1% cross-reactivity with recombinant human TGF-β RIII and rmTGF-β RI is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human TGF-β RII Ile24-Asp159 Accession # P37173.2
Endotoxin Level	<0.01 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

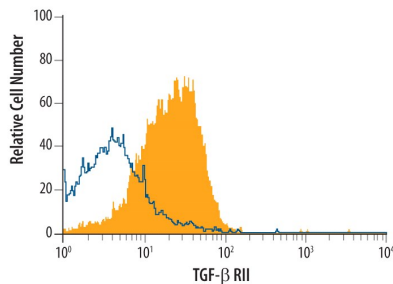
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Human TGF-β RII (Catalog # 241-R2)
Flow Cytometry	1 µg/10 ⁶ cells	See Below
Immunohistochemistry	5-15 µg/mL	See Below
Human TGF-β RII Sandwich Immunoassay		Reagent
ELISA Capture	0.2-0.8 µg/mL	Human TGF-β RII Antibody (Catalog # AF-241-NA)
ELISA Detection	0.1-0.4 µg/mL	Human TGF-β RII Biotinylated Antibody (Catalog # BAF241)
Standard		Recombinant Human TGF-β RII (Catalog # 241-R2)
Neutralization		Measured by its ability to neutralize TGF-β1 inhibition of IL-4-dependent proliferation in the TF-1 human erythroleukemic cell line. Tsang, M. <i>et al.</i> (1995) Cytokine 7:389. The Neutralization Dose (ND ₅₀) is typically 5-20 µg/mL in the presence of 0.04 ng/mL Recombinant Human TGF-β1 and 5 ng/mL Recombinant Human IL-4.

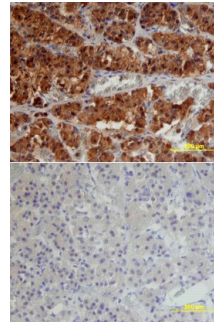
DATA

Flow Cytometry



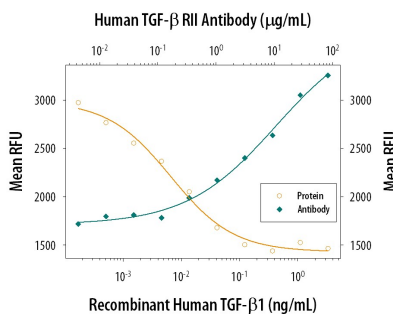
Detection of TGF-β RII in Human Lymphocytes by Flow Cytometry. Human blood-derived lymphocytes were labeled with Goat Anti-human TGF-β RII Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-241-NA, filled histogram) or control antibody (Catalog # AB-108-C, open histogram), followed by Allophycocyanin-conjugated Anti-Goat IgG Secondary Antibody (Catalog # F0108).

Immunohistochemistry



TGF-β RII in Human Pituitary. TGF-β RII was detected in immersion fixed paraffin-embedded sections of human pituitary using Goat Anti-Human TGF-β RII Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-241-NA) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Lower panel shows a lack of labeling if primary antibodies are omitted and tissue is stained only with secondary antibody followed by incubation with detection reagents. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

Neutralization



TGF-β1 Inhibition of IL-4-dependent Cell Proliferation and Neutralization by Human TGF-β RII Antibody. Recombinant Human TGF-β1 (Catalog # 240-B) inhibits Recombinant Human IL-4 (Catalog # 204-IL) induced proliferation in the TF-1 human erythroleukemic cell line in a dose-dependent manner (orange line). Inhibition of Recombinant Human IL-4 (5 ng/mL) activity elicited by Recombinant Human TGF-β1 (0.04 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Human TGF-β RII Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-241-NA). The ND₅₀ is typically 10-20 µg/mL.

PREPARATION AND STORAGE

Reconstitution Reconstitute at 0.2 mg/mL in sterile PBS.

Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C

Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

TGF β RII is a membrane bound serine/threonine kinase. Upon ligand binding, TGF β RII interacts with TGF β RI to form the heteromeric signaling complex that transduces TGF β signals. A splice variant of the type II receptor, TGF β RIIb, containing a 25 amino acid residue insertion near the Nterminus of the mature protein has also been described.