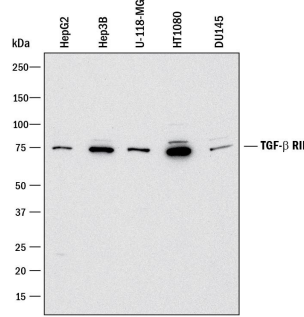
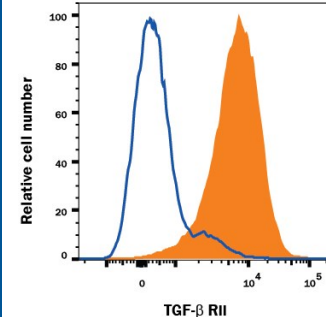
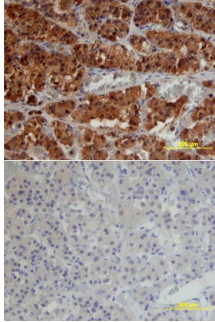


DESCRIPTION	
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human TGF- $\beta$ RII in direct ELISAs and Western blots.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human TGF- $\beta$ RII Ile24-Asp159 Accession # P37173.2
<b>Endotoxin Level</b>	<0.10 EU per 1 $\mu$ g of the antibody by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 $\mu$ m filtered solution in PBS.

APPLICATIONS	
<b>Please Note:</b> Optimal dilutions should be determined by each laboratory for each application. <i>General Protocols</i> are available in the <i>Technical Information</i> section on our website.	
	<b>Recommended Concentration</b> <b>Sample</b>
<b>Western Blot</b>	2 $\mu$ g/mL      See Below
<b>Flow Cytometry</b>	1 $\mu$ g/10 <sup>6</sup> cells      See Below
<b>Immunohistochemistry</b>	5-15 $\mu$ g/mL      See Below
<b>Human TGF-<math>\beta</math> RII Sandwich Immunoassay</b>	<b>Reagent</b>
<b>ELISA Capture</b>	0.2-0.8 $\mu$ g/mL      Human TGF- $\beta$ RII Antibody (Catalog # AF-241-NA)
<b>ELISA Detection</b>	0.1-0.4 $\mu$ g/mL      Human TGF- $\beta$ RII Biotinylated Antibody (Catalog # BAF241)
<b>Standard</b>	Recombinant Human TGF- $\beta$ RII (Catalog # 241-R2)
<b>CytoF-ready</b>	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.
<b>Neutralization</b>	Measured by its ability to neutralize TGF- $\beta$ 1 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 <sub>50</sub> ) is typically 5-20 $\mu$ g/mL in the presence of 0.04 ng/mL Recombinant Human TGF- $\beta$ 1 and 5 ng/mL Recombinant Human IL-4.

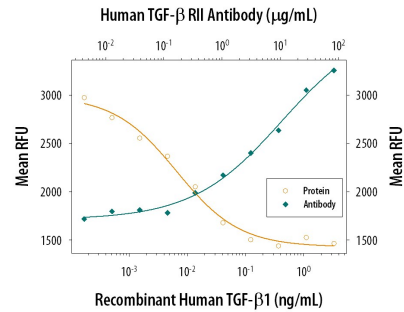
DATA	
<p><b>Western Blot</b></p>  <p><b>Detection of Human TGF-<math>\beta</math> RII by Western Blot.</b> Western blot shows lysates of HepG2 human hepatocellular carcinoma cell line, Hep3B human hepatocellular carcinoma cell line, U-118-MG human glioblastoma/astrocytoma cell line, HT1080 human fibrosarcoma cell line, and DU145 human prostate carcinoma cell line. PVDF membrane was probed with 2 <math>\mu</math>g/mL of Goat Anti-Human TGF-<math>\beta</math> RII Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-241-NA) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for TGF-<math>\beta</math> RII at approximately 75 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p><b>Flow Cytometry</b></p>  <p><b>Detection of TGF-<math>\beta</math> RII in Human Lymphocytes by Flow Cytometry.</b> Human blood-derived lymphocytes were labeled with Goat Anti-Human TGF-<math>\beta</math> RII Antigen Affinity-purified Poly-clonal 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).</p>

## Immunohistochemistry



**TGF- $\beta$  RII in Human Pituitary.** TGF- $\beta$  RII was detected in immersion fixed paraffin-embedded sections of human pituitary using Goat Anti-Human TGF- $\beta$  RII Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-241-NA) at 15  $\mu$ g/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- $\beta$ 1 Inhibition of IL-4-dependent Cell Proliferation and Neutralization by Human TGF- $\beta$ RII Antibody.

Recombinant Human TGF- $\beta$ 1 (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- $\beta$ 1 (0.04 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti- Human TGF- $\beta$  RII Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-241-NA). The ND<sub>50</sub> is typically 10-20  $\mu$ g/mL.

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

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