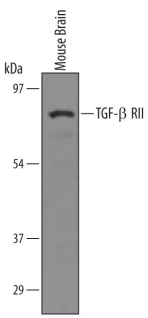
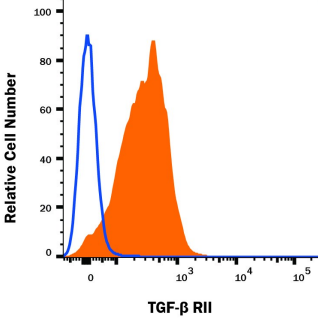


DESCRIPTION	
Species Reactivity	Mouse
Specificity	Detects mouse TGF-β RII in direct ELISAs and Western blots. In direct ELISAs, less than 10% cross-reactivity with recombinant human (rh) TGF-β RII is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse TGF-β RII and <i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant mouse TGF-β RII Ile24-Asp184 Accession # Q62312
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 either lyophilized or 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	2 μg/mL	See Below
Flow Cytometry	0.25 μg/10 ⁶ cells	Mouse splenocytes
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA	
<p>Western Blot</p>  <p>Detection of Mouse TGF-β RII by Western Blot. Western blot shows lysates of mouse brain tissue. PVDF membrane was probed with 2 μg/mL of Goat Anti-Mouse TGF-β RII Antigen Affinity-purified Polyclonal Antibody (Catalog # AF532) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for TGF-β RII at approximately 75 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.</p>	<p>Flow Cytometry</p>  <p>Detection of TGF-β RII in Mouse splenocytes by Flow Cytometry Mouse splenocytes were stained with Goat Anti-Mouse TGF-β RII Antigen Affinity-purified Polyclonal Antibody (Catalog # AF532, filled histogram) or isotype control antibody (Catalog # AB-108-C, open histogram) followed by Phycoerythrin-conjugated Anti-Goat IgG Secondary Antibody (Catalog # F0107). View our protocol for Staining Membrane-associated Proteins.</p>

PREPARATION AND STORAGE	
Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS. For liquid material, refer to CoA for concentration.
Shipping	Lyophilized product is shipped at ambient temperature. Liquid small pack size (-SP) is shipped with polar packs. Upon receipt, store immediately at the temperature recommended below.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 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

Most cell types express three sizes of receptors for TGF- β . These are designated Type I (53 kDa), Type II (70 - 85 kDa), and Type III (250 - 350 kDa). The Type III receptor, a proteoglycan that exists in membrane-bound and soluble forms, binds TGF- β 1, TGF- β 2, and TGF- β 3 but does not appear to be involved in signal transduction. The Type II receptor is a membrane-bound serine/threonine kinase that binds TGF- β 1 and TGF- β 3 with high affinity and TGF- β 2 with a much lower affinity. The Type I receptor is also a membrane-bound serine/threonine kinase that apparently requires the presence of the Type II receptor to bind TGF- β . Current evidence suggests that signal transduction requires the cytoplasmic domains of both the Type I and Type II receptors.

The recombinant soluble TGF- β Type II receptor is capable of binding TGF- β 1, TGF- β 3, and TGF- β 5 with sufficient affinity to act as an inhibitor of these isoforms at high concentrations. The soluble receptor also binds TGF- β 2, but with an affinity at least two orders of magnitude lower. Binding of TGF- β 1, TGF- β 3, and TGF- β 5 to the soluble TGF- β Type II receptor can also be demonstrated by using the soluble receptor as a capture agent on ELISA plates and this observation has been used as the basis for the development of immunoassays for these isoforms of TGF- β .

References:

1. Miyazono, K. *et al.* (1994) Adv. in Immunol. **55**:181.