

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
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

CyTOF-ready	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.
Flow Cytometry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

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 .

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