Mouse TGF-β RI/ALK-5 PE-conjugated Antibody

Monoclonal Rat IgG_{2A} Clone # 141231

Catalog Number: FAB5871P

100 TESTS, 25 TESTS

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detect mouse TGF-β RI/ALK-5 in flow cytometry. Although this clone detects human and mouse TGF-β RI/ALK-5 in Western blots, positive results have not been observed on human TGF-β RI/ALK-5 in flow cytometry. In direct ELISAs and Western blots, this antibody shows no cross-reactivity with rrMIS RII, rhTGF-β RII, rhTGF-β RIIb, or rhTGF-β RIII.
Source	Monoclonal Rat IgG_{2A} Clone # 141231
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*S. frugiperda* insect ovarian cell line *Sf* 21-derived recombinant mouse TGF-β RI/ALK-5 Ala21-Glu121 Accession # BAA05023
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *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.

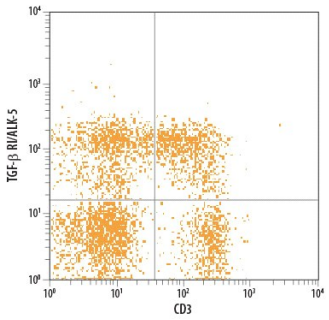
APPLICATIONS

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.*

	Recommended Concentration	Sample
Flow Cytometry	10 µL/10^6 cells	See Below

DATA

Flow Cytometry



Detection of TGF-β RI/ALK-5 in Mouse Splenocytes by Flow Cytometry. Mouse splenocytes were stained with Rat Anti-Mouse TGF-β RI/ALK-5 PE-conjugated Monoclonal Antibody (Catalog # FAB5871P) and Rat Anti-Mouse CD3 APC-conjugated Monoclonal Antibody (Catalog # FAB4841A). Quadrant markers were set based on control antibody staining (Catalog # IC006P). View our protocol for Staining Membrane-associated Proteins.

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-β1, TGF-β2, and TGF-β3 but does not appear to be involved in signal transduction. The Type II receptor is a membrane-bound serine/threonine kinase that binds TGF-β1 and TGF-β3 with high affinity and TGF-β2 with a much lower affinity. The Type I receptor, originally known as ALK-5 (Activin receptor-like kinase) 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.

References:

1. Miyazono, K. *et al.* (1994) Adv. In Immunol. **55**:181.
2. Massagùe, J. (1998) Ann. Rev. Biochem. **67**:753.

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