

DESCRIPTION

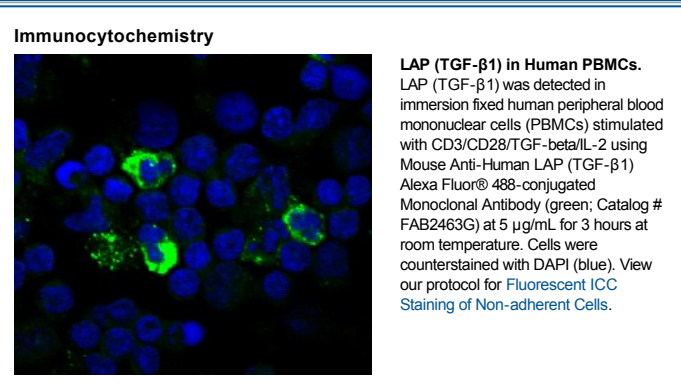
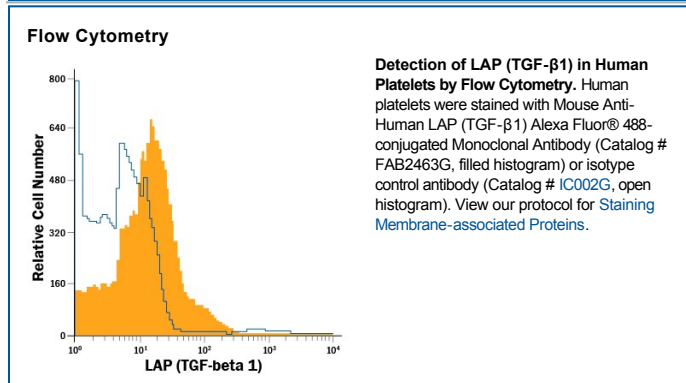
Species Reactivity	Human
Specificity	Detects human LAP (TGF- β 1) in direct ELISAs. In direct ELISAs, this antibody does not cross-react with recombinant human (rh) TGF- β 1, rhTGF- β 2, rhTGF- β 1.2, rhTGF- β 3, or rhTGF- α .
Source	Monoclonal Mouse IgG ₁ Clone # 27232
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human LAP (TGF- β 1) Leu30-Arg278 (Cys33Ser) Accession # P01137
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 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	5 μ L/10 ⁶ cells	See Below
Immunocytochemistry	5-15 μ g/mL	See Below

DATA



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. <ul style="list-style-type: none"> ● 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

TGF- β 1 is one member of a six gene family that has been described in mammals, birds, fish and frog. The name TGF- β is applied to a 24-28 kDa disulfide-linked dimer that is generated through the proteolytic processing of a larger precursor molecule. For TGF- β 1, a 50-55 kDa, 391 amino acid (aa) proprecursor is first, covalently linked to a second proprecursor (creating a disulfide-linked homodimer), and second, internally cleaved to generate two covalently-linked homodimers that remain non-covalently associated. The smallest homodimer representing aa 279-390 of the proform is TGF- β 1; the largest homodimer representing aa 30-278 of the proform is termed LAP (Latency-associated Peptide). The LAP homodimer wraps itself around the smaller TGF- β 1 homodimer, thus blocking an interaction of mature TGF- β with its receptors. Almost all cells secrete the inactive TGF- β :LAP complex, and most do so with LAP covalently bound to a very large 120-160 kDa LTBP (Latent TGF- β Binding Protein), platelets being a notable exception. LTBP associates with multiple matrix components and this serves to store TGF- β extracellularly in a non-active form. When TGF- β signaling is needed, the LTBP:matrix association is disrupted, and the TGF- β :LAP complex is exposed to multiple LAP binding partners such as TSP-1 and various Integrins. Interactions with these factors cause LAP to unwrap and dissociate from TGF- β , resulting in TGF- β "activation" and receptor binding. There are three human TGF- β 1 LAPs and TGF- β 1 LAP shares 36% and 33% aa sequence identity with TGF- β 2 LAP and TGF- β 3 LAP, respectively. Human to mouse, TGF- β 1 LAP shares 86% aa sequence identity.

PRODUCT SPECIFIC NOTICES

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