

DESCRIPTION

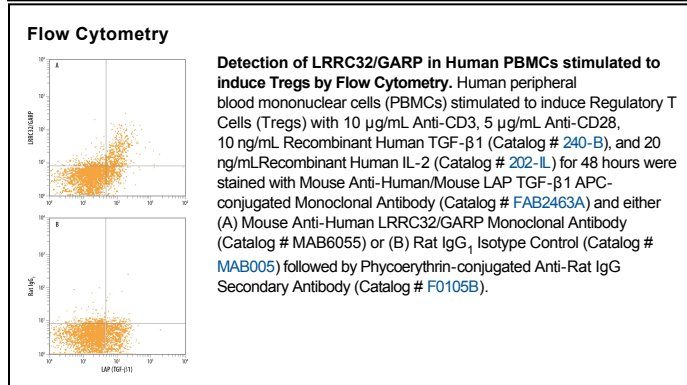
Species Reactivity	Human
Specificity	Detects human LRRC32/GARP in ELISAs. In direct ELISAs, no cross-reactivity with recombinant mouse LRRC32 is observed.
Source	Monoclonal Rat IgG _{2A} Clone # 855151
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	recombinant human LRRC32/GARP Accession # Q14392
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 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
Flow Cytometry	2.5 µg/10 ⁶ cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	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
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

Leucine-rich repeat protein 32 (LRRC32), also known as GARP (glycoprotein A repetitions predominant), is an 80 kDa type I transmembrane glycoprotein (1). Mature human LRRC32 consists of a 608 amino acid (aa) extracellular domain (ECD) that contains 22 leucine-rich repeats, a 21 aa transmembrane segment, and a 14 aa cytoplasmic domain (2, 3). Within the ECD, human LRRC32 shares approximately 80% aa sequence identity with mouse and rat LRRC32. LRRC32 is widely expressed during embryogenesis and on adult platelets (4, 5). Human LRRC32 is identified as a lineage specific key receptor for human T cells. It is selectively expressed on activated FOXP3⁺ regulatory T cells (Treg) (6-10). LRRC32 expression promotes the acquisition of a Treg phenotype including reduced cellular proliferation, reduced cytokine secretion, and the capacity to suppress the proliferation of naïve T cells (6-8). LRRC32 binds directly to the TGF- β latency associated peptide (LAP) and tethers latent TGF- β on the surface of activated Treg cells (9, 10). The presentation of TGF- β on Tregs contributes to their ability to suppress naïve T cell proliferation (11).

References:

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