Mouse LRRC32/GARP Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF6229

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse LRRC32/GARP in direct ELISAs. In direct ELISAs, approximately 20% cross-reactivity with recombinant human (rh) LRRC32 is observed and less than 5% cross-reactivity with rhLRRC3, rhLRRC4, and rhLRRC4B is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant mouse LRRC32/GARP Ile18-Asn628 Accession # NP_001106850
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.

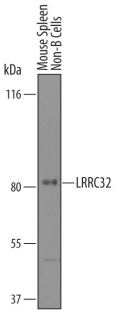
APPLICATIONS

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
Western Blot	0.1 µg/mL	See Below
Immunocytochemistry	5-15 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	Immersion fixed frozen sections of mouse thymus

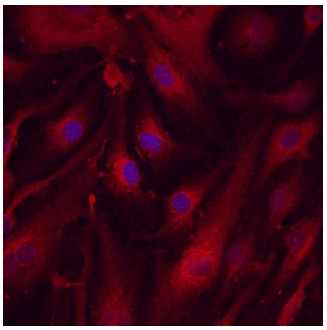
DATA

Western Blot



Detection of Mouse LRRC32/GARP by Western Blot. Western blot shows lysates of mouse spleen non-B cells. PVDF Membrane was probed with 0.1 µg/mL of Sheep Anti-Mouse LRRC32/GARP Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6229) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for LRRC32/GARP at approximately 85 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



LRRC32/GARP in bEnd.3 Mouse Cell Line. LRRC32/GARP was detected in immersion fixed bEnd.3 mouse endothelioma cell line using Sheep Anti-Mouse LRRC32/GARP Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6229) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red; Catalog # NL010) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 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.** ● 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.

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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 mouse 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 (2-4). Within the ECD, mouse LRRC32 shares 80 and 94% aa sequence identity with human and rat LRRC32, respectively. LRRC32 is widely expressed during embryogenesis and on adult platelets (4, 5). Among 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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