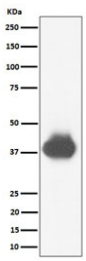
CD32A/B/C Antibody / Pan-FCGR2 Immune Receptor [clone 29F31] (RQ8697)

Catalog No.	Formulation	Size
RQ8697	Antibody in PBS with 0.02% sodium azide, 50% glycerol and 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	29F31
Purity	Affinity chromatography
UniProt	P12318, P31994, P31995
Applications	Western blot: 1:500-1:2000
Limitations	This CD32A/B/C Antibody / Pan-FCGR2 Immune Receptor is available for research use only.



CD32A/B/C Antibody U937 WB. Western blot analysis of human U937 cell lysate using CD32A/B/C Antibody / Pan-FCGR2 Immune Receptor. A broad immunoreactive band is detected near 34-40 kDa, consistent with the expected glycosylation-dependent migration pattern of FCGR2 family proteins including CD32A/FCGR2A, CD32B/FCGR2B, and CD32C/FCGR2C. These low-affinity Fc gamma receptors function in immune complex recognition, leukocyte activation, and regulation of antibody-mediated immune signaling pathways.

Description

Fc gamma receptor II family proteins (FCGR2A, FCGR2B, and FCGR2C), collectively known as CD32 receptors, are low-affinity IgG Fc receptors involved in immune complex recognition, leukocyte activation, and regulation of antibody-mediated immune responses. CD32A/B/C Antibody / Pan-FCGR2 Immune Receptor is useful for studying Fc receptor signaling, immune complex handling, innate immunity, inflammatory regulation, and leukocyte activation pathways. CD32 family receptors are broadly expressed on monocytes, macrophages, neutrophils, dendritic cells, B lymphocytes, and

additional immune-associated cell populations.

CD32A/B/C antibody, also referred to as FCGR2A antibody, FCGR2B antibody, FCGR2C antibody, or Fc gamma receptor II antibody in the literature, recognizes multiple members of the FCGR2 receptor family involved in balancing activating and inhibitory immune signaling responses. FCGR2A functions primarily as an activating Fc receptor promoting phagocytosis and inflammatory signaling, whereas FCGR2B serves as a major inhibitory Fc receptor limiting excessive immune activation and maintaining immune tolerance. FCGR2C shares structural similarity with related FCGR2 family members and contributes to regulation of antibody-mediated leukocyte responses.

CD32 receptors bind IgG-containing immune complexes with lower affinity than CD64/FCGR1A and participate in immune complex clearance, cytokine production, antigen presentation, and Fc-mediated signaling pathways. Through coordinated activating and inhibitory signaling mechanisms, FCGR2 family receptors regulate inflammation, infection responses, autoimmunity, and antibody-dependent cellular processes. Altered FCGR2 signaling has been implicated in autoimmune disease, chronic inflammation, infectious disease susceptibility, and cancer-associated immune regulation.

FCGR2 proteins function together with intracellular tyrosine kinase signaling complexes controlling cytoskeletal remodeling, phagocytosis, and inflammatory activation. CD32 receptors additionally contribute to regulation of B-cell activation thresholds and macrophage-mediated immune responses. Because Fc receptor signaling is central to both innate and adaptive immunity, pan-FCGR2 detection strategies are valuable for studies investigating immune receptor expression and antibody-mediated signaling pathways.

FCGR2A, FCGR2B, and FCGR2C are encoded within the Fc receptor gene cluster on chromosome 1q23 and produce highly glycosylated type I transmembrane receptors containing extracellular immunoglobulin-like domains responsible for IgG binding. Differential glycosylation and receptor isoform expression may influence observed molecular weights in western blot applications. CD32 family proteins localize primarily to the plasma membrane where they regulate immune-cell communication and Fc-mediated inflammatory signaling.

This recombinant rabbit monoclonal CD32A/B/C antibody clone 29F31 has been developed for selective detection of multiple FCGR2 family members in western blot applications. The antibody supports analysis of pan-FCGR2 receptor expression patterns relevant to leukocyte activation, immune complex signaling, and innate immune receptor biology in research applications.

Researchers studying Fc receptor signaling, immune complex recognition, and leukocyte activation pathways may also benefit from the CD32 Antibody / Low-Affinity Fc Gamma Receptor page featuring western blot, immunohistochemistry, immunofluorescence, and flow cytometry validation data for endogenous FCGR2 detection.

Application Notes

Optimal dilution of the CD32A/B/C Antibody / Pan-FCGR2 Immune Receptor should be determined by the researcher.

Immunogen

A synthetic peptide specific to human CD32 protein was used as the immunogen for the CD32A/B/C antibody.

Storage

Store the CD32A/B/C antibody at -20oC.

Alternate Names

FCGR2A antibody, FCGR2B antibody, FCGR2C antibody, CD32 antibody, Fc gamma receptor II antibody

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