Human Fcγ RII/CD32 Alexa Fluor® 594-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1875T
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Fc gamma RII/CD32 in direct ELISAs and Western blots. In Western blots, less than 5% cross-reactivity with recombinant human Fc gamma RIIIB is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Fcγ RIIA/CD32a Ala36-Ile218 Accession # AAA35827
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *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.*

CyTOF-ready	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.
Blockade of Receptor-ligand Interaction	Optimal dilution of this antibody should be experimentally determined.
Flow Cytometry	Optimal dilution of this antibody should be experimentally determined.

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

Receptors for the Fc region of IgG (Fc γ R) are members of the Ig superfamily that function in the activation or inhibition of immune responses. Three classes of human Fc γ Rs: RI (CD64), RII (CD32), and RIII (CD16), which generate multiple isoforms, are recognized (1 - 3). The activating-type receptor either has or associates non-covalently with an accessory subunit (FcRγ or ζ chain) that has an immunoreceptor tyrosine-based activation motif (ITAM) in its cytoplasmic domain. In contrast, the inhibitory receptor (Fc γ RIIB) has a built-in immunoreceptor tyrosine-based inhibitory motif (ITIM) in its own cytoplasmic domain. Fc γ RI is a high-affinity receptor that binds monomeric IgG, both Fc γ RII and RIII are low-affinity receptors that bind aggregated or immune complexed IgG (IC).

Three genes for human Fc γ RII (A, B, and C) and one for mouse (Fc γ RIIB), encoding type I transmembrane proteins with ITAM motifs (Fc γ RII A and C) or ITIM motifs (Fc γ RIIB) in their cytoplasmic domains, have been identified (1 - 3). The extracellular domain of human Fc γ RIIA shares approximately 90% amino acid sequence homology with human Fc γ RIIB and Fc γ RIIC. Fc γ RIIA is expressed on many immune cell types (macrophage, neutrophil, eosinophils, platelets, dendritic cells and Langerhan cells) where inhibitory ITIM-bearing receptors may also be coexpressed and co-engaged by specific ligands. Signaling through Fc γ RIIA results in the initiation of inflammatory responses (cytolysis, phagocytosis, degranulation and cytokine production) that can be modulated by signals from the inhibitory receptors. The strength of the signal is dependent on the ratio of expression of the activating and inhibitory receptors. Besides IC, Fc γ RII A also binds C-reactive protein (CRP) (4, 5). Two allelic variants (R167 and H167) of Fc γ RIIA that differ in their ability to ligate human IgG2 or CRP exist. The H167 allele has been found to have a protective effect against lupus nephritis.

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