Antibodies

Anti-Human CD32 Antibody, Clone IV.3

Mouse monoclonal IgG2b antibody against human CD32, unconjugated

100 µg

Catalog #60012

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Product Description

The IV.3 antibody reacts with human CD32 (FcγRII), an ~40 kDa type 1 transmembrane glycoprotein that mediates several functions including phagocytosis, cytotoxicity, immunomodulation and platelet aggregation. CD32 is encoded by three genes (A, B, C) and at least 6 isoforms are generated via alternative mRNA splicing, i.e., IIa1, IIa2, IIb1, IIb2, IIb3 and IIc. All isoforms are expressed by monocytes/macrophages, placental trophoblasts and endothelial cells. In addition, the IIb isoform is expressed by B cells, and the IIa isoform by platelets, granulocytes and, weakly, by B cells. Isoform IIc is expressed by NK cells and neutrophils. CD32 binds weakly to the Fc region of monomeric IgG but more strongly to IgG aggregates and immune complexes. These interactions can result in non-specific labeling in antibody-based detection and cell separation experiments and the IV.3 antibody may be employed as a blocking antibody to reduce non-specific binding. The IV.3 antibody binds most strongly to the IIa isoforms of CD32.

Target Antigen Name:	CD32
Alternative Names:	FCR II, FcγRII
Gene ID:	2212
Species Reactivity:	Human
Host Species:	Mouse
Clonality:	Monoclonal
Clone:	IV.3
Isotype:	IgG2b
Immunogen:	K-562 human erythromyeloblastoid leukemia cell line
Conjugate:	Unconjugated

Applications

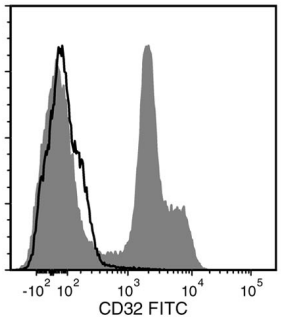
Verified:	Blocking, CellSep, FC
Reported:	FA, FC, ICC, IHC, WB
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Human T Cell Enrichment Kit (Catalog #19051) and EasySep™ Human CD4+ T Cell Enrichment Kit (Catalog #19052).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; WB: Western blotting

Properties

Size:	100 µg
Concentration:	0.5 mg/mL
Formulation:	Phosphate-buffered saline
Purification:	The antibody was purified by affinity chromatography.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Addition of 0.1% sodium azide (final) is recommended once the vial has been opened. For product expiry date, please request a lot-specific Certificate of Analysis from techsupport@stemcell.com.
Directions for Use:	The suggested use of this antibody is: FC and blocking, <1 µg per 1 x 10e6 cells in 100 µL volume or per 100 µL of whole blood. It is recommended that the antibody be titrated for optimal perfomance for each application.

Data



Flow cytometry analysis of human peripheral blood mononuclear cells (PBMCs) labeled with Anti-Human CD32 Antibody, Clone IV.3, followed by goat anti-mouse IgG, FITC (filled histogram) or a mouse IgG2b, kappa isotype control antibody followed by goat anti-mouse IgG, FITC (solid line histogram).

Related Products

PRODUCT NAME	CATALOG #	SIZE
Anti-Human CD32 Antibody, Clone IV.3	60012	100 µg
Anti-Human CD32 Antibody, Clone IV.3, FITC	60012FI	100 tests

References

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3. Tomiyama Y, et al. Response of human platelets to activating monoclonal antibodies: importance of Fc gamma RII (CD32) phenotype and level of expression. Blood 80(9): 2261-68, 1992
4. Ierino FL, et al. Mapping epitopes of human Fc gamma RII (CDw32) with monoclonal antibodies and recombinant receptors. J Immunol 150: 1794-803, 1993 (FC)
5 Schlossman SF, et al. Eds. Leucocyte Typing V: Binding heterogeneity within the CD32 panel of mAB. Oxford University Press, New York, pp. 832-35, 1995
6. Van Sorge NM, et al. FcgammaR polymorphisms: Implications for function, disease susceptibility and immunotherapy. Tissue Antigens 61(3): 189-202, 2003
7. Boruchov AM, et al. Activating and inhibitory IgG Fc receptors on human DCs mediate opposing functions. J Clin Invest 115(10): 2914-23, 2005 (FC)