

1P-751-T100

Monoclonal Antibody to CD32 Phycoerythrin (PE) conjugated (100 tests)

Clone:	3D3
Isotype:	Mouse IgG1
Specificity:	The mouse monoclonal antibody 3D3 recognizes CD32, a 40 kDa polymorphic transmembrane glycoprotein serving as the low affinity receptor for aggregated IgG. This antibody recognizes CD32 on B cells of all donors, but on platelets, monocytes, and granulocytes of only some donors (131R variant, but not 131H variant).
Regulatory Status:	RUO
Immunogen:	purified glycosylated recombinant human Fcγ3R1a2
Species Reactivity:	Human
Preparation:	The purified antibody is conjugated with R-Phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
Storage Buffer:	The reagent is provided in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide.
Storage / Stability:	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.
Usage:	The reagent is designed for Flow Cytometry analysis of human blood cells using 10 µl reagent / 100 µl of whole blood or 10 ⁶ cells in a suspension. The content of a vial (1 ml) is sufficient for 100 tests.
Expiration:	See vial label
Lot Number:	See vial label
Background:	CD32 (Fcγ3R1) is a low affinity receptor for aggregated IgG. It is strongly expressed on monocytes, granulocytes, myeloid and myeloblastic cell lines, and weakly on B cells, CD34+ bone marrow cells, and resting and activated platelets. After binding its ligand, CD32 induces IgG-mediated phagocytosis and oxidative burst in monocytes and neutrophils, whereas in B cells it mediates a negative signal. This polymorphic transmembrane glycoprotein is expressed not only in the activating (CD32a) and inhibitory isoform (CD32b), but also in individual variants with differing avidities for IgG subtypes (e.g. the CD32a131R and CD32a131H allotypes).

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**Antibodies**

- References:**
- *Vely F, Gruel N, Moncuit J, Cochet O, Rouard H, Dare S, Galon J, Sautes C, Fridman WH, Teillaud JL: A new set of monoclonal antibodies against human Fc gamma RII (CD32) and Fc gamma RIII (CD16): characterization and use in various assays. *Hybridoma*. 1997 Dec;16(6):519-28.
 - *Boruchov AM, Heller G, Veri MC, Bonvini E, Ravetch JV, Young JW: Activating and inhibitory IgG Fc receptors on human DCs mediate opposing functions. *J Clin Invest*. 2005 Oct;115(10):2914-23.
 - *Dutertre CA, Bonnin-Gélizé E, Pulford K, Bourel D, Fridman WH, Teillaud JL: A novel subset of NK cells expressing high levels of inhibitory FcgammaRIIB modulating antibody-dependent function. *J Leukoc Biol*. 2008 Dec;84(6):1511-20
 - *Os A, Bürgler S, Ribes AP, Funderud A, Wang D, Thompson KM, Tjønnfjord GE, Bogen B, Munthe LA: Chronic lymphocytic leukemia cells are activated and proliferate in response to specific T helper cells. *Cell Rep*. 2013 Aug 15;4(3):566-77.
 - *Dai X, Jayapal M, Tay HK, Reghunathan R, Lin G, Too CT, Lim YT, Chan SH, Kemeny DM, Floto RA, Smith KG, Melendez AJ, MacAry PA: Differential signal transduction, membrane trafficking, and immune effector functions mediated by FcgammaRI versus FcgammaRIIa. *Blood*. 2009 Jul 9;114(2):318-27.

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