

## PB-644-T100

## Monoclonal Antibody to CD64 Pacific Blue™ conjugated (100 tests)

Clone:	10.1
lsotype:	Mouse IgG1
Specificity:	The mouse monoclonal antibody 10.1 recognizes alpha subunit of CD64/FcgammaRI, a 72 kDa single chain type I glycoprotein, that is expressed on monocytes/macrophages, dendritic cells, and activated granulocytes. HLDA III; WS Code M-250
Regulatory Status:	RUO
Immunogen:	Rheumatoid synovial fluid cells and fibronectin purified human monocytes
Species Reactivity:	Human, Non-Human Primates
Preparation:	The purified antibody is conjugated with Pacific Blue™ 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 4 $\mu$ l reagent / 100 $\mu$ l of whole blood or 10 <sup>6</sup> cells in a suspension. The content of a vial (0.4 ml) is sufficient for 100 tests.
Expiration:	See vial label
Lot Number:	See vial label
Background:	CD64 (FcgammaRI) is a cell surface receptor for Fc region of IgG. It is composed of specific ligand binding alpha subunit and promiscuous gamma subunit, which is indispensable for tyrosine-based signaling. However, even the alpha subunit can transduce signals leading to cellular effector functions. The isoform FcgammaRIa1 binds human IgG with high affinity, has limited myeloid cell distribution, and a relatively large intracellular domain. Products of related genes include FcgammaRIb and FcgammaRIc isoforms, but these specify low affinity IgG receptors if functionally expressed at all. Besides a role in antigen clearance, FcgammaRI (a1) can potently enhance MHC class I and II antigen presentation in vitro and in vivo.

For laboratory research only, not for drug, diagnostic or other use.



Antibodies References:

\*Dougherty GJ, Selvendran Y, Murdoch S, Palmer DG, Hogg N: The human mononuclear phagocyte high-affinity Fc receptor, FcRI, defined by a monoclonal antibody, 10.1. Eur J Immunol. 1987 Oct;17(10):1453-9.

\*Hashimoto S, Yamada M, Motoyoshi K, Akagawa KS: Enhancement of macrophage colony-stimulating factor-induced growth and differentiation of human monocytes by interleukin-10. Blood. 1997 Jan 1;89(1):315-21.

\*Fadlon E, Vordermeier S, Pearson TC, Mire-Sluis AR, Dumonde DC, Phillips J, Fishlock K, Brown KA: Blood polymorphonuclear leukocytes from the majority of sickle cell patients in the crisis phase of the disease show enhanced adhesion to vascular endothelium and increased expression of CD64. Blood. 1998 Jan 1;91(1):266-74.

\*Brichard B, Varis I, Latinne D, Deneys V, de Bruyere M, Leveugle P, Cornu G: Intracellular cytokine profile of cord and adult blood monocytes. Bone Marrow Transplant. 2001 May;27(10):1081-6.

\*Sánchez-Torres C, García-Romo GS, Cornejo-Cortés MA, Rivas-Carvalho A, Sánchez-Schmitz G: CD16+ and CD16- human blood monocyte subsets differentiate in vitro to dendritic cells with different abilities to stimulate CD4+ T cells. Int Immunol. 2001 Dec;13(12):1571-81.

\*Beekman JM, Bakema JE, van der Linden J, Tops B, Hinten M, van Vugt M, van de Winkel JG, Leusen JH: Modulation of FcgammaRI (CD64) ligand binding by blocking peptides of periplakin. J Biol Chem. 2004 Aug 6;279(32):33875-81.

\*Roura-Mir C, Wang L, Cheng TY, Matsunaga I, Dascher CC, Peng SL, Fenton MJ, Kirschning C, Moody DB: Mycobacterium tuberculosis regulates CD1 antigen presentation pathways through TLR-2. J Immunol. 2005 Aug 1;175(3):1758-66.

\*Devaraj S, Du Clos TW, Jialal I: Binding and internalization of C-reactive protein by Fcgamma receptors on human aortic endothelial cells mediates biological effects. Arterioscler Thromb Vasc Biol. 2005 Jul;25(7):1359-63.

\*Devaraj S, Davis B, Simon SI, Jialal I: CRP promotes monocyte-endothelial cell adhesion via Fcgamma receptors in human aortic endothelial cells under static and shear flow conditions. Am J Physiol Heart Circ Physiol. 2006 Sep;291(3):H1170-6.

\*Jayaram Y, Buckle AM, Hogg N: The Fc receptor, FcRI, and other activation molecules on human mononuclear phagocytes after treatment with interferon-gamma. Clin Exp Immunol. 1989 Mar;75(3):414-20. \*And many other.

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