

PRODUCT INFORMATION



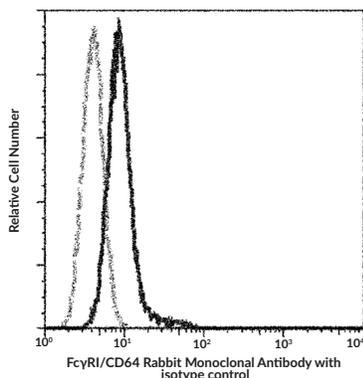
FcγRI/CD64 Rabbit Monoclonal Antibody (Clone 027)

Item No. 37015

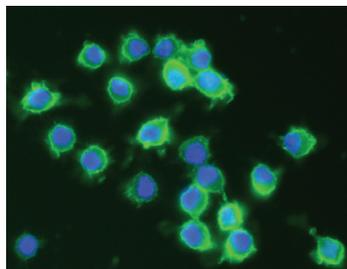
Overview and Properties

Contents:	This vial contains 50 or 100 μl of protein A-affinity purified monoclonal antibody.
Synonyms:	Fcγr1, Fc-γ RIA, FcγRIa, FcRI, High Affinity IgGγ Fc Receptor I, High Affinity Immunoglobulin Gamma Fc Receptor I, IgG Fc Receptor I
Immunogen:	Recombinant mouse C-terminal His-tagged CD64 extracellular domain
Cross Reactivity:	(+) CD64
Species Reactivity:	(+) Mouse; other species not tested
Form:	Liquid
Storage:	-80°C (as supplied)
Stability:	≥1 year
Storage Buffer:	0.2 μm filtered solution in PBS
Clone:	027
Host:	Rabbit
Isotype:	IgG
Applications:	Flow cytometry (FC), Immunocytochemistry (ICC), Immunofluorescence (IF); the recommended starting dilution is 1:25-1:100 for FC and 1:20-1:100 for IF. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Flow cytometric analysis of FcγRI/CD64 overexpressed in RAW 264.7 cells. Cells were labeled with purified FcγRI/CD64 Rabbit Monoclonal Antibody (Clone 027), followed by a FITC-conjugated secondary antibody. The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of intact cells.



Immunofluorescent analysis of FcγRI/CD64 in RAW 264.7 cells. Cells were fixed with 4% PFA, blocked with 10% serum, and incubated with FcγRI/CD64 Rabbit Monoclonal Antibody (Clone 027) at a dilution of 1:60 at 37°C for one hour. Cells were then stained with an Alexa Fluor® 488-conjugated goat anti-rabbit IgG secondary antibody (green) and counterstained with DAPI (blue). Positive staining was localized to the cell membrane.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
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Description

CD64, also known as high-affinity immunoglobulin γ receptor I (Fc γ RI), is a transmembrane glycoprotein that binds the Fc region of IgG.¹ It is composed of a ligand-binding α -chain, which contains three extracellular Ig-like domains, a transmembrane region, and a cytoplasmic domain, and two γ -chains, which contain immunoreceptor tyrosine-based activation motifs (ITAMs) that mediate signal transduction.²⁻⁴ CD64 is constitutively expressed in myeloid cells, including monocytes and macrophages, but can be induced in neutrophils in response to IFN- γ or G-CSF.^{3,5} It is involved in phagocytosis, cytokine release, antibody-dependent cell-mediated cytotoxicity (ADCC), and antigen presentation to primed T cells.^{1,6} Mouse CD64 selectively forms immune complexes with IgG2a, whereas human CD64 forms immune complexes with IgG1, IgG3, and IgG4.^{1,7} Knockout of *Fcgr1*, the gene encoding CD64, inhibits clearance of *B. pertussis* infection in mice.¹ Increased serum levels of CD64 are associated with sepsis.⁸ Cayman's Fc γ RI/CD64 Rabbit Monoclonal Antibody (Clone 027) can be used for flow cytometry (FC), immunocytochemistry (ICC), and immunofluorescence (IF) applications.

References

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