FCGR1A / CD64 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	FCGR1A / CD64, Monoclonal Antibody
Full Product Name	Anti-FCGR1A / CD64 Antibody (clone 3D3) IHC-plus
Product Gene Name	anti-FCGR1A / CD64 antibody
Product Synonym Names	Mouse Monoclonal [clone 3D3] (IgG1) to Human FCGR1A / CD64; Human FCGR1A / CD64; CD64A; CD64 antigen; FCG1; FcgammaRIa; IGFR1; IgG Fc receptor I; Fc-gamma receptor I A1; Fc-gamma RIA; FCGR1; Fc gamma receptor; Fc-gamma RI; FCRI
Clonality	Monoclonal
Isotype	IgG1
Clone Number	3D3
Host	Mouse
Species Reactivity	Human
Form/Format	PBS, pH 7.3, 1% BSA, 50% glycerol, 0.02% sodium azide
Purity/Purification	Protein A/G purified
Concentration	1 mg/ml (lot specific)
Specificity	Human CD64
Preparation and Storage	Store at -20°C. Avoid freeze-thaw cycles. Stable for 12 months from date of receipt if properly stored.
OMIM	146760
3D Structure	ModBase 3D Structure for P12314
Immunogen Species	FCGR1A / CD64 antibody was raised against Human
Immunogen	FCGR1A / CD64 antibody was raised against full length human recombinant protein of human FCGR1A(NP_000557) produced in HEK293T cell.
Antigen Type	Recombinant protein
Disclaimer	Due to the highly specific nature of antibodies and antigens, we cannot predict or be held responsible with respect to how this antibody will behave in your systems. Researchers using this antibody should conduct optimization studies to achieve the most optimal result possible for their intended application.

Recommended Immunohistochemistry Protocol	The following protocol is a recommendation only, and MyBioSource, Inc. makes no guarantee of the results: **Tissue Preparation:** Formalin fixation and embedding in paraffin wax. **Tissue Sectioning:** Make 4-um sections and place on pre-cleaned and charged microscope slides. Heat in a tissue-dryingoven for 45 minutes at 60°C. **Deparaffinization:** Wash dry slides in 3 changes of xylene - 5 minutes each @ RT **Rehydration:** Wash slides in 3 changes of 100% alcohol - 3 minutes each @ RT Wash slides in 2 changes of 95% alcohol - 3 minutes each @ RT Wash slides in 1 change of 80% alcohol - 3 minutes @ RT Rinse slides in gentle running distilled water - 5 minutes @ RT **Antigen retrieval:** Steam slides in 0.01 M sodium citrate buffer, pH 6.0 at 99-100°C - 20 minutes Remove from heat and let stand at room temperature in buffer - 20 minutes Rinse in 1X TBS with Tween (TBST) -1 minute @ RT **Immunostaining:** (Do not allow tissues to dry at any time during the staining procedure) Apply a universal protein block - 20 minutes @ RT Drain protein block from slides, apply diluted primary antibody - 45 minutes @ RT Rinse slides in 1 X TBST - 1 minute @ RT Apply a biotinylated secondary antibody appropriate for the primary antibody - 30 minutes @ RT Rinse slides in 1X TBST -1 minute @ RT Apply alkaline phosphatase streptavidin - 30 minutes @ RT Rinse slides in 1X TBST -1 minute @ RT Apply alkaline phosphatase chromogen substrate - 30 minutes @ RT Wash slides in distilled water - 1 minute @ RT **Dehydrate:** (This method should only be used if the chromogen substrate is alcohol insoluble (e.g. Vector Red, DAB) Wash slides in 2 changes of 80% alcohol - 1 minute each @ RT Wash slides in 2 changes of 95% alcohol - 1 minute each @ RT Wash slides in 3 changes of 100% alcohol - 1 minute each @ RT Wash slides in 3 changes of xylene - 1 minute each @ RT Apply coverslip
Applications Tested/Suitable for anti-FCGR1A / CD64 antibody	Immunohistochemistry (IHC) Paraffin, Immunofluorescence (IF), Western Blot (WB)
Application Notes for anti-FCGR1A / CD64 antibody	IHC-Paraffin (10 ug/ml) Immunofluorescence (1:100) Western Blot (1:4000) (optimal dilution to be determined by the researcher)
Related Product Information for anti-FCGR1A / CD64 antibody	MBS249232 is an antibody targeting FCGR1A / CD64. Also known as Anti-FCGR1A / CD64 Antibody (clone 3D3) IHC-plus. Reactive in Human. Host: Mouse.
Other Notes	Small volumes of anti-FCGR1A / CD64 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for FCGR1A / CD64. It may not necessarily be applicable to this product.

NCBI GI #	10835133

NCBI GeneID	2209
NCBI Accession #	NP_000557.1
UniProt Primary Accession #	P12314
UniProt Secondary Accession #	P12315; Q5QNW7; Q92495; Q92663
UniProt Related Accession #	P12314
GenBank Nucleotide #	NM_000566.3
NCBI Official Full Name	high affinity immunoglobulin gamma Fc receptor I
NCBI Official Synonym Full Names	Fc fragment of IgG receptor Ia
NCBI Official Symbol	FCGR1A
NCBI Official Synonym Symbols	CD64; FCRI; CD64A; IGFR1
UniProt Protein Name	High affinity immunoglobulin gamma Fc receptor I
UniProt Synonym Protein Names	Fc-gamma RI; FcRI; Fc-gamma RIA; FcgammaRIa; CD_antigen: CD64
UniProt Gene Name	FCGR1A
UniProt Synonym Gene Names	FCG1; FCGR1; IGFR1; IgG Fc receptor I; FcRI; FcgammaRIa
UniProt Entry Name	FCGR1_HUMAN
NCBI Protein Information	high affinity immunoglobulin gamma Fc receptor I
NCBI Summary for FCGR1A / CD64	This gene encodes a protein that plays an important role in the immune response. This protein is a high-affinity Fc-gamma receptor. The gene is one of three related gene family members located on chromosome 1. [provided by RefSeq, Jul 2008]
UniProt Comments for FCGR1A / CD64	FCGR1A: High affinity receptor for the Fc region of immunoglobulins gamma. Functions in both innate and adaptive immune responses. Belongs to the immunoglobulin superfamily. FCGR1 family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Receptor, misc.; Membrane protein, integral Chromosomal Location of Human Ortholog: 1q21.2-q21.3 Cellular Component: early endosome membrane; integral to membrane; plasma membrane Molecular Function: IgG binding; protein binding; receptor signaling protein activity Biological Process: antigen processing and presentation of exogenous peptide antigen via MHC class I; antigen processing and presentation of exogenous peptide antigen via MHC class I, TAP-dependent; antigen processing and presentation of peptide antigen via MHC class I; cytokine and chemokine mediated signaling pathway; immune response; innate immune response; phagocytosis, engulfment; regulation of immune response; signal transduction
Research Articles on FCGR1A / CD64	**1.** we address of monocytes functional status through assessment of the patterns of expression of Fcgamma receptors CD64, CD32, CD16 and CD180 receptor on monocytes from CLL patients and healthy individuals using specific mAbs and flow cytometry.
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