

Mouse anti-Human CD114 Antibody | anti-CD114 antibody

Anti-Hu CD114 APC

CATALOG # AAA129378	HOST Mouse	REACTIVITY Human	APPLICATIONS Flow Cytometry, Functional Assay
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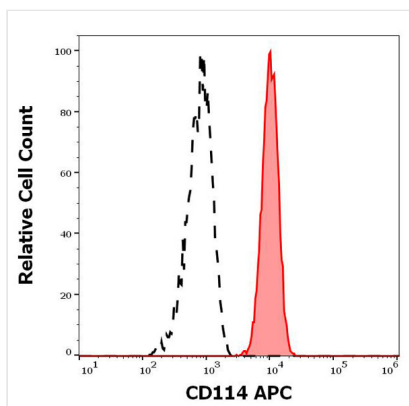
PRODUCT SYNONYMS

CD114; Anti-Hu CD114 APC; colony stimulating factor 3 receptor; GCSFR; CSF3R; SCN7; anti-CD114 antibody

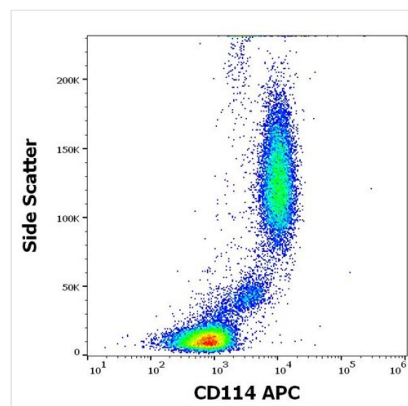
PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human
Isotype	Mouse IgG1 kappa
Clone Number	LMM741
Specificity	The mouse monoclonal antibody LMM741 recognizes an extracellular epitope of CD114 (colony stimulating factor 3 receptor), a 130 kDa transmembrane glycoprotein expressed on granulocytes and their differentiation stages, on monocytes, platelets, endothelial cells and placenta. It is absent from lymphocytes and erythrocytes.
Purity/Purification	Purified antibody is conjugated with activated allophycocyanin (APC) under optimum conditions and unconjugated antibody and free fluorochrome are removed by size-exclusion chromatography.
Form/Format	Stabilizing phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
Applicable Applications for anti-CD114 antibody	FCM/FACS (Flow Cytometry)
Negative Species	Mouse
Immunogen	CHO cells transfected with human CD114
Conjugation	APC
Preparation and Storage	Store at 2-8 degree C. Protect from prolonged exposure to light. Do not freeze.

IMAGES


FCM/FACS (Flow Cytometry)

Separation of human neutrophil granulocytes (red-filled) from lymphocytes (black-dashed) in flow cytometry analysis (surface staining) of human peripheral whole blood stained using anti-human CD114 (LMM741) APC antibody (10ul reagent/100ul of peripheral whole blood).


FCM/FACS (Flow Cytometry)

Flow cytometry surface staining pattern of human peripheral whole blood stained using anti-human CD114 (LMM741) APC antibody (10ul reagent/100ul of peripheral whole blood).

ADDITIONAL INFORMATION

Related Product Information for anti-CD114 antibody	CD114/G-CSFR (granulocyte colony-stimulating factor receptor, also known as CSF3R) is a type I transmembrane glycoprotein which upon binding of its ligand (G-CSF, granulocyte colony-stimulating factor) homodimerizes and activates signaling transduction to mediate cell proliferation, survival, and differentiation. It is expressed by granulocytes at all stages of their differentiation, as well as by monocytes, dendritic cells, and mature platelets. Among non-hematopoietic cells, it is expressed e.g. by endothelial cells, placenta, trophoblasts, and many tumor cell lines. This antigen is a target for stem cell mobilization for blood stem cell transplantation, for enhancing recovery of myelopoiesis following chemotherapy and in the treatment of patients with severe chronic neutropenia.
References	*Layton JE, Shimamoto G, Osslund T, Hammacher A, Smith DK, Treutlein HR, Boone T: Interaction of granulocyte colony-stimulating factor (G-CSF) with its receptor. Evidence that Glu19 of G-CSF interacts with Arg288 of the receptor. J Biol Chem. 1999 Jun 18;274(25):17445-51., URL: https://pubmed.ncbi.nlm.nih.gov/10364174/, *Layton JE, Hall NE, Connell F, Venhorst J, Treutlein HR: Identification of ligand-binding site III on the immunoglobulin-like domain of the granulocyte colony-stimulating factor receptor. J Biol Chem. 2001 Sep 28;276(39):36779-87., URL: http://www.ncbi.nlm.nih.gov/pubmed/?term=layton+je+hall+ne+connel+f, *Gibbs KD Jr, Gilbert PM, Sachs K, Zhao F, Blau HM, Weissman IL, Nolan GP, Majeti R: Single-cell phospho-specific flow cytometric analysis demonstrates biochemical and functional heterogeneity in human hematopoietic stem and progenitor compartments. Blood. 2011 Apr 21;117(16):4226-33. doi: 10.1182/blood-2010-07-298232., URL: https://pubmed.ncbi.nlm.nih.gov/21357764/, *Tchou J, Zhang PJ, Bi Y, Satija C, Marjumdar R, Stephen TL, Lo A, Chen H, Mies C, June CH, Conejo-Garcia J, Puré E: Fibroblast activation protein expression by stromal cells and tumor-associated macrophages in human breast cancer. Hum Pathol. 2013 Nov;44(11):2549-57., URL: http://www.ncbi.nlm.nih.gov/pubmed/24074532, *Cimato TR, Palka BA, Lang JK, Young RF: LDL cholesterol modulates human CD34+ HSPCs through effects on proliferation and the IL-17 G-CSF axis. PLoS One. 2013 Aug 26;8(8):e73861., URL: http://www.ncbi.nlm.nih.gov/pubmed/?term=cimato+tr+palka+ba+lang+ba, *Layton JE, Iaria J, Smith DK, Treutlein HR: Identification of a ligand-binding site on the granulocyte colony-stimulating factor receptor by molecular modeling and mutagenesis. J Biol Chem. 1997 Nov 21;272(47):29735-41., URL: http://www.ncbi.nlm.nih.gov/pubmed/9368043,

NCBI AND UNIPROT INFORMATION

NCBI GI #	27437045
NCBI GeneID	1441
NCBI Accession #	NP_758519.1
NCBI GenBank Nucleotide #	NM_172313.2
UniProt Accession #	Q99062
Molecular Weight	92,156 Da
NCBI Official Full Name	granulocyte colony-stimulating factor receptor isoform d
NCBI Official Synonym Full Names	colony stimulating factor 3 receptor (granulocyte)
NCBI Official Symbol	CSF3R
NCBI Official Synonym Symbols	CD114; GCSFR
NCBI Protein Information	granulocyte colony-stimulating factor receptor; G-CSF-R; CD114 antigen; G-CSF receptor
UniProt Protein Name	Granulocyte colony-stimulating factor receptor
UniProt Gene Name	CSF3R
UniProt Synonym Gene Names	GCSFR; G-CSF receptor; G-CSF-R
UniProt Entry Name	CSF3R_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.