



Anti-CSF3R monoclonal antibody, clone LMM775 [R-PE] (CABT-48988MH)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview

Mouse anti Human CD114 antibody, clone LMM775 recognises the human Granulocyte colony-stimulating factor receptor (G-CSF-R) also known as CD114. CD114 is a 836 amino acid, single pass type I transmembrane glycoprotein, a crucial factor in the survival and maturation of cells in the neutrophilic lineage. CD114 contains a single Ig-like C2-type and five fibronectin type-III domains (UniProt: Q99062). Mouse anti Human CD114 antibody, clone LMM775 binds to an epitope located within the Ig-like domain but does not block binding of G-CSF to its receptor. Mouse anti Human CD114 antibody, clone LMM775 does not bind to a mutant G-CSF-R when the Ig-like domain has been substituted with the related gp130 Ig-like domain. G-CSF stimulates the production of neutrophils and accelerates their maturation in bone marrow. Expression of CD114 is down regulated on granulocytes but not monocytes following acute exposure to bacterial components including LPS with potential consequences for granulocyte function in the acute response to infection. The G-CSF-receptor on monocytes is functional, playing a role in the release of cytokines, either directly or indirectly following bacterial challenge. The G-CSF receptor CD114 has also been implicated in the induction of β -1 integrin mediated adhesion and invasion of pancreatic cancer cells. Flow Cytometry Use 10ul of the suggested working dilution to label 10⁶ cells or 100ul whole blood.

Specificity	CSF3R
Isotype	IgG1
Source/Host	Mouse
Species Reactivity	Human
Clone	LMM775
Conjugate	PE
Applications	FC

Format	Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilised
Size	100 tests
Preservative	0.09% Sodium Azide
Storage	Prior to reconstitution store at +4°C. Following reconstitution store at +4°C. DO NOT FREEZE. This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.

GENE INFORMATION

Gene Name	CSF3R colony stimulating factor 3 receptor (granulocyte) [Homo sapiens (human)]
Official Symbol	CSF3R
Synonyms	CSF3R; colony stimulating factor 3 receptor (granulocyte); CD114; GCSFR; granulocyte colony-stimulating factor receptor; G-CSF-R; CD114 antigen; G-CSF receptor;
Entrez Gene ID	1441
Protein Refseq	NP_000751
UniProt ID	Q99062
Chromosome Location	1p35-p34.3
Pathway	Cytokine-cytokine receptor interaction; Hematopoietic cell lineage; Jak-STAT signaling pathway; PI3K-Akt signaling pathway; Pathways in cancer;
Function	cytokine receptor activity; protein binding; receptor activity;