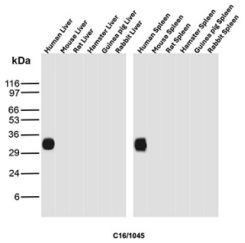
CD16 Antibody / FCGR3 Immune Cell Marker [clone C16/1045] (V8858)

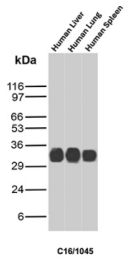
Catalog No.	Formulation	Size
V8858-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V8858-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V8858SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

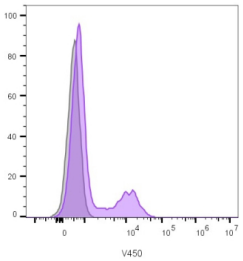
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	C16/1045
Purity	Protein A/G affinity
UniProt	P08637
Localization	Cell Surface
Applications	Flow cytometry: 0.5-1ug/million cells Immunofluorescence: 1-2ug/ml Western blot: 2-4ug/ml
Limitations	This CD16 Antibody / FCGR3 Immune Cell Marker is available for research use only.



CD16 Antibody Immune Tissue WB. Western blot analysis of human liver, mouse liver, rat liver, hamster liver, guinea pig liver, rabbit liver, human spleen, mouse spleen, rat spleen, hamster spleen, guinea pig spleen, and rabbit spleen tissue lysates using CD16 antibody clone C16/1045. A distinct immunoreactive band is detected in human liver and human spleen samples near the expected molecular weight range of FCGR3 / CD16, consistent with expression of this Fc gamma receptor in immune-associated tissues involved in leukocyte activation and Fc-mediated innate immune signaling pathways.



CD16 Antibody Human Tissue WB. Western blot analysis of human liver, human lung, and human spleen tissue lysates using CD16 mouse monoclonal antibody clone C16/1045. Distinct bands are detected near the expected molecular weight range of FCGR3 / CD16 across multiple human tissues, supporting endogenous expression of this immune cell-associated Fc receptor involved in antibody-dependent cellular cytotoxicity and leukocyte signaling pathways.



CD16 Antibody PBMC FACS. Flow cytometry analysis of lymphocyte-gated human peripheral blood mononuclear cells stained with CD16 antibody clone C16/1045 (violet). A distinct rightward fluorescence shift is observed relative to unstained control cells (gray), consistent with surface expression of FCGR3 / CD16 on immune cell populations involved in Fc-mediated cytotoxicity and innate immune signaling pathways.

Description

Fc gamma receptor III (FCGR3), commonly known as CD16, is an Fc receptor family member involved in antibody-mediated immune activation, leukocyte signaling, and innate immune responses. CD16 Antibody / FCGR3 Immune Cell Marker is useful for studying natural killer cell biology, Fc-mediated cytotoxicity, monocyte activation, neutrophil signaling, and leukocyte immunophenotyping. FCGR3 receptors are encoded primarily by the FCGR3A and FCGR3B genes and are expressed on natural killer cells, macrophages, monocytes, neutrophils, and subsets of cytotoxic immune cells.

CD16 antibody, also referred to as FCGR3 antibody, FCGR3A antibody, FCGR3B antibody, or Fc gamma receptor III antibody in the literature, recognizes a membrane-associated Fc receptor involved in binding IgG-containing immune complexes and antibody-coated target cells. CD16 signaling contributes to antibody-dependent cellular cytotoxicity, inflammatory activation, cytokine release, and Fc-mediated leukocyte communication pathways important in innate immunity and tumor immune surveillance.

FCGR3A is primarily associated with natural killer cells and activated macrophage populations where it regulates cytotoxic immune signaling and Fc-mediated cellular activation. FCGR3B is predominantly expressed by neutrophils and contributes to immune complex handling and inflammatory responses. Because CD16 expression is closely linked to cytotoxic and innate immune cell populations, the receptor is widely used in flow cytometry, immunophenotyping, hematology, and immunology research applications.

CD16 participates in signaling pathways involving Fc receptor gamma chain-containing complexes that activate downstream tyrosine kinase signaling mechanisms controlling degranulation, phagocytosis, cytoskeletal remodeling, and inflammatory responses. The receptor additionally contributes to therapeutic antibody responses and immune-cell activation pathways relevant to infectious disease, cancer immunology, and inflammatory regulation.

FCGR3 genes are located within the Fc receptor cluster on chromosome 1q23 and encode glycosylated transmembrane receptors containing extracellular immunoglobulin-like domains responsible for IgG binding. Differential glycosylation may influence observed molecular weight patterns in western blot analysis. CD16 proteins localize predominantly to the plasma membrane where they mediate Fc-dependent immune activation and leukocyte signaling.

This mouse monoclonal CD16 antibody clone C16/1045 has been supported using western blot and flow cytometry approaches to confirm endogenous FCGR3 detection in immune-associated tissues and peripheral blood mononuclear cell populations. Western blot analysis demonstrates endogenous receptor detection in human tissue lysates, while flow cytometry studies support selective detection of CD16-positive lymphocyte populations relevant to Fc-mediated innate immune signaling research.

Researchers studying Fc-mediated immune signaling, natural killer cell biology, and antibody-dependent cellular cytotoxicity may also benefit from the CD16 Antibody / Fc Gamma Receptor III Immune Marker page featuring immunohistochemistry, immunofluorescence, and flow cytometry validation data for endogenous FCGR3 detection.

Application Notes

Optimal dilution of the CD16 Antibody / FCGR3 Immune Cell Marker should be determined by the researcher.

Immunogen

Recombinant human CD16 protein was used as the immunogen for the CD16 antibody.

Storage

Aliquot the CD16 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

FCGR3 antibody, FCGR3A antibody, FCGR3B antibody, Fc gamma receptor III antibody, CD16 leukocyte marker antibody

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