

DESCRIPTION

Target:	CD16
Target aliases:	CD16a: FCGR3A, Fc Gamma Receptor IIIa, FcgammaRIIIa, FcGR1IIA, CD16a, FCGR3, CD16 CD16b: FCGR3B, Fc Gamma Receptor IIIb, FcRIIIb, FcgammaRIIIb, CD16b, FCGR3, CD16, FCG3
Fc isotype:	IgG2a
Membrane proteome specificity:	Monospecific for 6,000 membrane proteins tested
Species reactivity:	Human (Others untested)
Extracellular epitope:	Yes
Fc modifications:	C-terminal Avitag ¹ , disabled Fc-γ receptor binding ²
Source:	Recombinant CHO expression; purified by Protein A chromatography
Formulation:	Endotoxin Free PBS pH 7.4, sterile-filtered
Concentration:	1 mg/ml

1. A peptide tag that can be biotinylated in vitro using the biotin ligase enzyme (BirA).
2. Mutated Fc-γ receptor binding site to minimize non-specific antibody binding.

CD16 TARGET INFORMATION

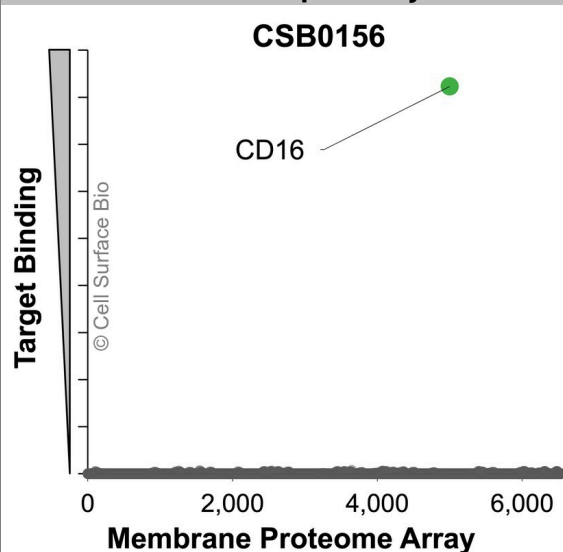
CD16 refers to two closely related receptors, FCGR3A and FCGR3B, both members of the immunoglobulin superfamily that bind the Fc portion of IgG antibodies with low affinity. These proteins contain extracellular immunoglobulin-like domains and differ in their membrane anchoring: FCGR3A is a transmembrane protein expressed on natural killer (NK) cells, macrophages, and subsets of T cells, while FCGR3B is GPI-anchored and primarily found on neutrophils. CD16 mediates antibody-dependent cellular cytotoxicity (ADCC) and other immune effector functions through IgG binding. These receptors play a central role in linking the adaptive humoral response to innate immune mechanisms. (NCBI Gene: 2214, 2215, UniProtKB/Swiss-Prot: P08637, O75015) Other names: CD16a: FCGR3A, Fc Gamma Receptor IIIa, FcgammaRIIIa, FcGR1IIA, CD16a, FCGR3, CD16 CD16b: FCGR3B, Fc Gamma Receptor IIIb, FcRIIIb, FcgammaRIIIb, CD16b, FCGR3, CD16, FCG3

SHIPPING AND STORAGE

Shipping:	Shipped at ambient temperature. Store at 4°C.
Stability & Storage:	Stable for 12 months from date of receipt when stored at 4°C. Avoid repeated freeze-thaw cycles.

VALIDATION DATA

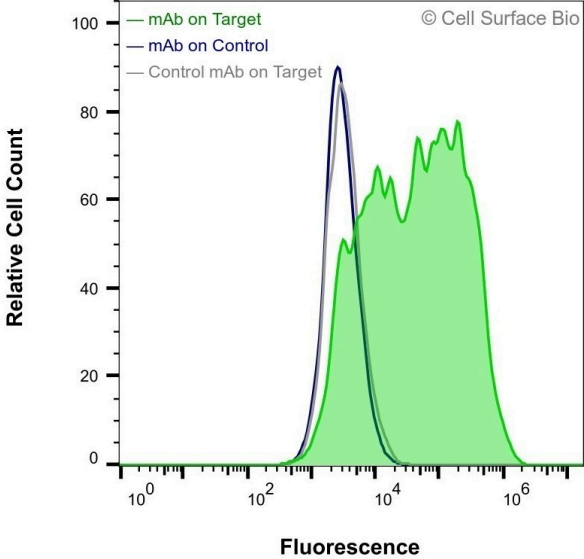
Membrane Proteome Specificity



The specificity of CD16 Monoclonal Antibody (CSB0156) was tested on the Membrane Proteome Array™ and shown to be specific for CD16.

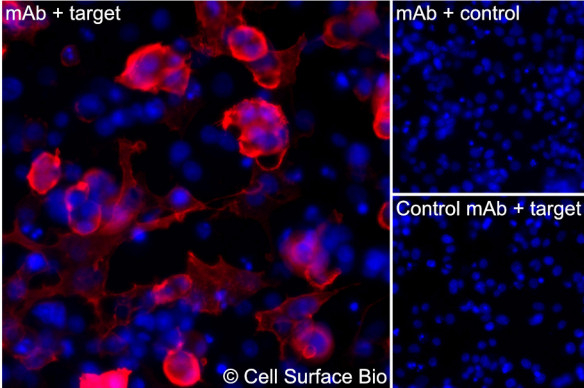
The Membrane Proteome Array™ contains 6,000 different human membrane proteins, each expressed in unfixed avian cells to ensure native conformation and post-translational modifications. The Membrane Proteome Array™ represents the industry standard for determining the binding specificity of antibodies and other protein ligands.

Applications	Conditions	Recommended concentration
Flow Cytometry, Extracellular	Live, Unpermeabilized	1 µg/ml



HEK-293F cells transiently transfected with CD16 were stained with CD16 Monoclonal Antibody (CSB0156) (green) or isotype control antibody (gray), followed by AlexaFluor 647- conjugated anti- IgG secondary antibody. HEK-293F cells transiently transfected with an empty control vector were also stained with CD16 Monoclonal Antibody (CSB0156) (blue).

Applications	Conditions	Recommended concentration
Immunofluorescence, Extracellular	Fixed 4% paraformaldehyde	1 µg/ml



(Left) COS-7 cells transiently transfected CD16 were stained with CD16 Monoclonal Antibody (CSB0156) followed by AlexaFluor 647 anti- IgG secondary antibody (red) and DAPI (blue). (Top right) COS-7 cells transiently transfected with an empty control vector stained with CD16 Monoclonal Antibody. (Bottom right) Isotype control: COS-7 cells transfected with CD16 and stained with control MAb.

Applications

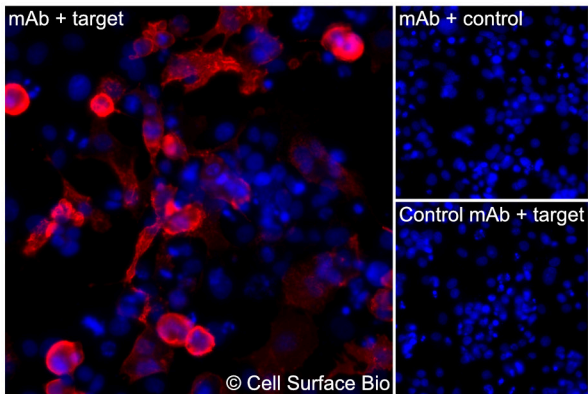
Immunofluorescence, Intracellular

Conditions

Fixed 4% paraformaldehyde,
Permeabilized 0.1% Triton X-100

Recommended concentration

1 µg/ml



(Left) COS-7 cells transiently transfected CD16 were permeabilized and stained with CD16 Monoclonal Antibody (CSB0156) followed by AlexaFluor 647 anti- IgG secondary antibody (red) and DAPI (blue). (Top right) COS-7 cells transiently transfected with an empty control vector stained with CD16 Monoclonal Antibody. (Bottom right) Isotype control: COS-7 cells transfected with {{target}} and stained with control MAb.