

Datasheet for ABIN93995  
**anti-CD16 antibody (FITC)**



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## Overview

Quantity:	100 tests
Target:	CD16
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CD16 antibody is conjugated to FITC
Application:	Flow Cytometry (FACS)

## Product Details

Immunogen:	Human granulocytes
Clone:	MEM-154
Isotype:	IgG1
Specificity:	The antibody MEM-154 reacts with an extracellular epitope on CD16 antigen that is residing in proximity to FG loop (probably BC or C'E loop). CD16 is a low affinity receptor for aggregated IgG (FcγRIII antigen). The antibody MEM-154 reacts with CD16+ granulocytes, and it can be used for mapping CD16-158V/F polymorphism on NK cells, as it requires presence of V at amino acid 158.
Cross-Reactivity (Details):	Human
Purification:	Purified antibody is conjugated with fluorescein isothiocyanate (FITC) under optimum conditions and unconjugated antibody and free fluorochrome are removed by size-exclusion chromatography.

## Target Details

Target:	CD16
Alternative Name:	CD16 ( <a href="#">CD16 Products</a> )
Background:	CD16 (FcgammaRIII) is a 50-65 kDa glycoprotein serving as a low affinity IgG receptor. Human FcgammaRIII is expressed in two forms –, FcgammaRIII-A and -B. FcgammaRIII-A is a transmembrane protein of monocytes, macrophages, NK cells and a subset of T cells. It is associated with FcepsilonRI-gamma subunit and is responsible for antibody-dependent NK cell cytotoxicity. Mast cell FcgammaRIII-A is associated, moreover, with FcepsilonRI-beta subunit. Besides IgG, FcgammaRIII-A can be triggered also by oligomeric IgE. FcgammaRIII-B is a GPI-linked monomeric receptor expressed on neutrophils and is involved in their activation and induction of a proadhesive phenotype.,FcgammaRIII, IGFR3, FCRIII
Pathways:	<a href="#">Regulation of Leukocyte Mediated Immunity</a> , <a href="#">Positive Regulation of Immune Effector Process</a>

## Application Details

Application Notes:	Flow cytometry: The reagent is designed for analysis of human blood cells using 20 µL reagent / 100 µL of whole blood or 10 <sup>6</sup> cells in a suspension. The content of a vial (2 ml) is sufficient for 100 tests.
Comment:	The purified antibody is conjugated with Fluorescein isothiocyanate (FITC) under optimum conditions. The reagent is free of unconjugated FITC and adjusted for direct use. No reconstitution is necessary.
Restrictions:	For Research Use only

## Handling

Reconstitution:	No reconstitution is necessary.
Buffer:	Stabilizing phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	<b>Do not freeze.</b> Avoid prolonged exposure to light.
Storage:	4 °C
Storage Comment:	Store at 2-8°C. Protect from prolonged exposure to light. Do not freeze.

Product cited in: Reil, Sachs, Siahianidou, Flesch, Bux: "HNA-1d: a new human neutrophil antigen located on Fcγ receptor IIIb associated with neonatal immune neutropenia." in: **Transfusion**, (2013) ([PubMed](#)).

Gasdaska, Sherwood, Regan, Dickey: "An afucosylated anti-CD20 monoclonal antibody with greater antibody-dependent cellular cytotoxicity and B-cell depletion and lower complement-dependent cytotoxicity than rituximab." in: **Molecular immunology**, Vol. 50, Issue 3, pp. 134-41, (2012) ([PubMed](#)).

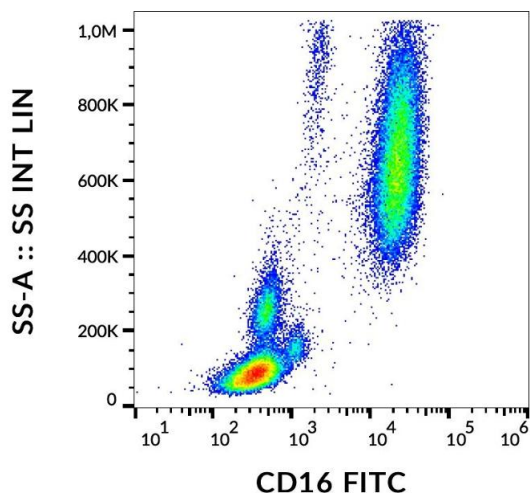
Schnueriger, Grau, Sondermann, Schreitmüller, Marti, Zocher: "Development of a quantitative, cell-line based assay to measure ADCC activity mediated by therapeutic antibodies." in: **Molecular immunology**, Vol. 48, Issue 12-13, pp. 1512-7, (2011) ([PubMed](#)).

Koene, Kleijer, Algra, Roos, von dem Borne, de Haas: "Fc gammaRIIIa-158V/F polymorphism influences the binding of IgG by natural killer cell Fc gammaRIIIa, independently of the Fc gammaRIIIa-48L/R/H phenotype." in: **Blood**, Vol. 90, Issue 3, pp. 1109-14, (1997) ([PubMed](#)).

de Haas, Koene, Kleijer, de Vries, Simsek, van Tol, Roos, von dem Borne: "A triallelic Fc gamma receptor type IIIA polymorphism influences the binding of human IgG by NK cell Fc gamma RIIIa." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 156, Issue 8, pp. 2948-55, (1996) ([PubMed](#)).

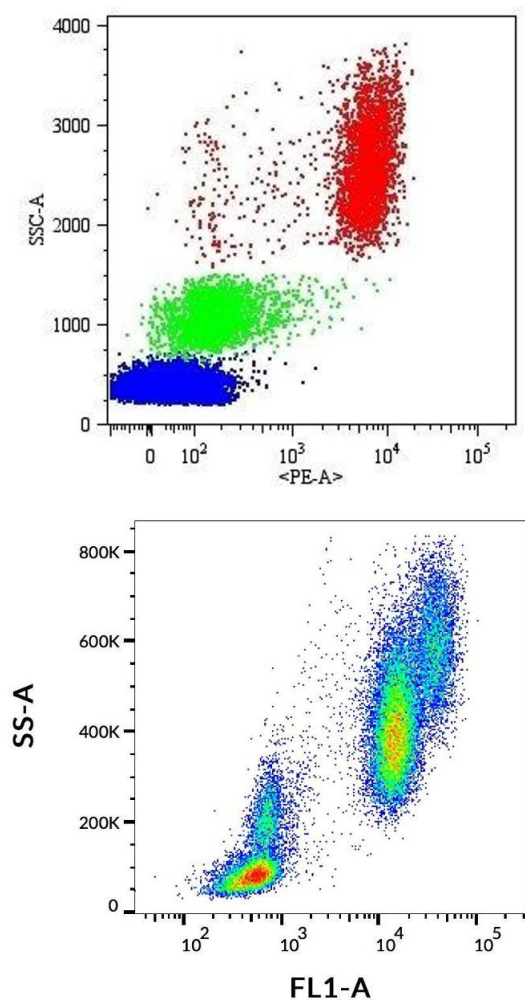
There are more publications referencing this product on: [Product page](#)

Images



**Flow Cytometry**

**Image 1.** Flow cytometry analysis (surface staining) of human peripheral blood cells with anti-human CD16 (MEM-154) FITC.



### Flow Cytometry

**Image 2.** Surface staining of human peripheral blood cells with anti-human CD16 (MEM-154) PE. The antibody MEM-154 does not react with CD16a present on NK cells in many subjects.

### Flow Cytometry

**Image 3.** Surface staining of human peripheral blood cells with anti-human CD16 (MEM-154) FITC.