

TECHNICAL DATA SHEET

CyFlow™ CD16 Purified Anti-Hu; Clone MEM-168

REF BH367427

For Research Use Only.
Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD16
Alternative Names	FcγRIIIA, CD16a
Clone	MEM-168
Clonality	monoclonal
Format	Purified
Host / Isotype	Mouse / IgM
Species Reactivity	Human, Non-Human Primates Pig
Negative Species Reactivity	—
Quantity [Concentration]	0.1 mg [1 mg/ml]
Immunogen	Human granulocytes

Specificity

The mouse monoclonal antibody MEM-168 recognizes CD16 antigen, a low affinity receptor for aggregated IgG (FcγRIII antigen). CD16 exists in two different isoforms: CD16a (FcγRIIIA; 50-65 kDa;

Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: info@sysmex-partec.com

expressed on NK-cells, monocytes and macrophages) and CD16b (FcγRIIIB; 48 kDa; mainly expressed on neutrophils).

Application

Based on published sources, this antibody is suitable for the following applications:

- Flow cytometry

Storage Buffer

The reagent is provided in Tris buffered saline (TBS) solution, pH ≈8.0, containing 0.1% (w/v) sodium azide.

Storage and Stability

Storage	Avoid prolonged exposure to light. Store in the dark at 2-8°C. Do not freeze.
Stability	Do not use after expiration date stamped on vial label.

Background Information

CD16 (FcγRIII) is a 50-65 kDa glycoprotein serving as a low affinity IgG receptor. Human FcγRIII is expressed in two forms - FcγRIIIA and FcγRIIIB. FcγRIIIA is a transmembrane protein of monocytes, macrophages, NK cells and a subset of T cells. It is associated with FcεRI-γ subunit and is responsible for antibody-dependent NK cell cytotoxicity. Mast cell FcγRIIIA is associated, moreover, with FcεRI-β subunit. Besides IgG, FcγRIIIA can be triggered also by oligomeric IgE. FcγRIIIB is a GPI-linked monomeric receptor expressed on neutrophils and is involved in their activation and induction of a proadhesive phenotype.

References

- Gessner JE, Grussenmeyer T, Kolanus W, Schmidt RE: The human low affinity immunoglobulin G Fc receptor III-A and III-B genes: Molecular characterization of the promoter regions. J Biol Chem. 1995 Jan 20; 270(3):1350-61. < PMID: 7836402 >
- Kocher M, Siegel ME, Edberg JC, Kimberly RP: Cross-linking of Fc gamma receptor IIa and Fc gamma receptor IIIb induces different proadhesive phenotypes on human neutrophils. J Immunol. 1997 Oct 15; 159(8):3940-8. < PMID: 9378982 >
- Arase N, Arase H, Hirano S, Yokosuka T, Sakurai D, Saito T: IgE-mediated activation of NK cells through Fc gamma RIII. J Immunol. 2003 Mar 15; 170(6):3054-8. < PMID: 12626560 >

Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: info@sysmex-partec.com

- Drbal K, Moertelmaier M, Holzhauser C, Muhammad A, Fuerthbauer E, Howorka S, Hinterberger M, Stockinger H, Schütz GJ: Single-molecule microscopy reveals heterogeneous dynamics of lipid raft components upon TCR engagement. Int Immunol. 2007 May; 19(5):675-84. < PMID: 17446208 >

The Safety Data Sheet for this product is available at www.sysmex-partec.com/services.

Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: info@sysmex-partec.com