

CD116 Monoclonal Antibody (4H1), FITC,
eBioscience™

Catalog Number11-1169-41

Product data sheet

Details		Species Reactivity	
Size	25 Tests	Species reactivity	Human
Host/Isotope	Mouse / IgG1, kappa	Published species	Human
Class	Monoclonal	Tested ApplicationsDilution *	
Type	Antibody	Flow Cytometry (Flow)	5 µL (1 µg)/test
Clone	4H1	Immunocytochemistry (ICC/IF)	1:100
Conjugate	FITC	Published Applications	
Form	Liquid	Flow Cytometry (Flow)	See 1 publications below
Concentration	5 µL/Test	* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.	
Storage Conditions	4° C, store in dark, DO NOT FREEZE!		

Product specific information

Description: The 4H1 monoclonal antibody reacts with the human CD116 molecule, the alpha subunit of GM-CSF receptor. The alpha subunit associates with the common beta chain (CD131) to form the high affinity receptor for GM-CSF. The GM-CSFR alpha chain is expressed by granulocytes, monocytes, endothelial cells, fibroblasts and some tumor cells. Applications Reported: 4H1 has been reported for use in flow cytometric analysis. Applications Tested: This 4H1 antibody has been pre-titrated and tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at 5 µL (1 µg) per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10^5 to 10^8 cells/test. Excitation: 488 nm; Emission: 520 nm; Laser: Blue Laser. Filtration: 0.2 µm post-manufacturing filtered.

Background/Target Information

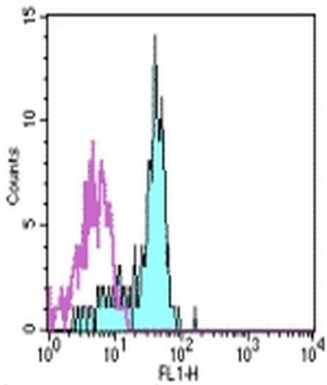
The protein encoded by this gene is the alpha subunit of the heterodimeric receptor for colony stimulating factor 2, a cytokine which controls the production, differentiation, and function of granulocytes and macrophages. The encoded protein is a member of the cytokine family of receptors. This gene is found in the pseudoautosomal region (PAR) of the X and Y chromosomes. Multiple transcript variants encoding different isoforms have been found for this gene, with some of the isoforms being membrane-bound and others being soluble.

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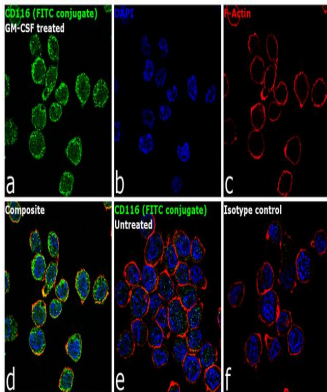
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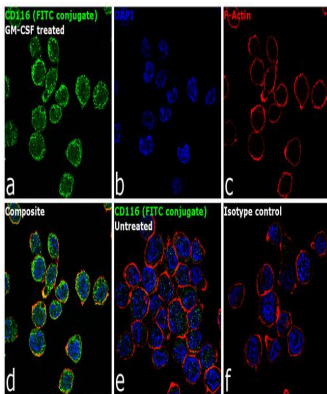
CD116 Antibody (11-1169-41) in Flow

Staining of normal human peripheral blood cells with Mouse IgG1 kappa Isotype Control FITC (Product # 11-4714-42) (open histogram) or Anti-Human CD116 FITC (filled histogram). Cells in the monocyte gate were used for analysis.



CD116 Antibody (11-1169-41)

Altered expression of target protein upon cell treatment demonstrates antibody specificity. Immunofluorescence analysis of CD116 using Anti-CD116 Mouse monoclonal Antibody (Product # 11-1169-42) shows increased expression of proteins in THP-1 cell line upon GM-CSF treatment. {TM}



CD116 Antibody (11-1169-41) in ICC/IF

Immunofluorescence analysis of CD116 was performed using 70% confluent log phase THP-1 cells treated with 10 ng of GM-CSF for 15 minutes. The cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton™ X-100 for 10 minutes, and blocked with 1% BSA for 1 hour at room temperature. The cells were labeled with CD116, FITC, Mouse Monoclonal antibody (Product # 11-1169-42) at 1:100 dilution in 0.1% BSA and incubated at 4 degree Celsius overnight (Panel a: green). Nuclei (Panel b: blue) were stained with SlowFade® Gold Antifade Mountant with DAPI (Product # S36938). F-actin (Panel c: red) was stained with Rhodamine Phalloidin (Product # R415, 1:300). Panel d represents the merged image showing membrane localization. Panel e shows untreated cells with less membrane signal. Panel f represents the isotype control. The images were captured at 60X magnification.

1 Flow Cytometry References

Species / Dilution	Summary
Human / Not Cited	<p>11-1169 was used in Flow cytometry/Cell sorting to investigate how Nef perturbs the intracellular maturation and the trafficking of nascent Fms, through a unique mechanism that required both the activation of Hck and the aberrant spatial regulation of the active Hck.</p> <p>Blood (2008; 111: 243)</p> <p>"Interaction between Hck and HIV-1 Nef negatively regulates cell surface expression of M-CSF receptor."</p> <p>Author(s):Hiyoshi M,Suzu S,Yoshidomi Y,Hassan R,Harada H,Sakashita N,Akari H,Motoyoshi K,Okada S</p> <p>PubMed Article URL:http://dx.doi.org/10.1182/blood-2007-04-086017</p>

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