



## Peninsula Laboratories, LLC

A Member of the Bachem Group

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### Monoclonal Antibody To Human CD16

#### Marker for NK cells, Monocytes and Macrophages, and Neutrophils

Monoclonal antibody c127 recognizes CD16, the low affinity receptor for IgG (FcγRIII). CD16 is expressed on the majority of NK cells, on granulocytes, monocytes and macrophages, and on a subset of T cells. CD16 is involved in antibody-dependent cellular cytotoxicity (ADCC). This molecule is encoded by FcγRIII-A or FcγRIII-B genes. The genetic heterogeneity of FcγRIII generates alternative membrane-anchored proteins with distinct signalling capacities when cross-linked by immune complexes.

CD16 exists in two distinct forms, as a single-pass type I integral membrane protein (CD16a), and as a glycosyl phosphatidyl inositol (GPI) form (CD16b). In humans, the transmembrane form is expressed on NK cells and macrophages while the GPI linked form is expressed on granulocytes. Antibody c127 has been described to detect both forms. However, immunohistochemically it reacts mainly with granulocytes.

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<b>Product Number:</b>	T-1373
<b>Clone:</b>	c127
<b>Host species, isotype:</b>	Mouse IgG1
<b>Quantity:</b>	200μg
<b>Format:</b>	Affinity purified, lyophilized  Reconstitute by adding 0.5ml distilled water. This stock solution contains 0.4mg/ml IgG, phosphate buffered saline pH 7.2 (PBS), 5mg/ml bovine serum albumin (BSA), and 0.09% sodium azide as a preservative.
<b>Stability:</b>	Original vial: 1 year at 4° - 8°C  Stock solution or aliquots thereof: 1 year at -20°C. Avoid repeated thawing and freezing.
<b>Applications:</b>	Tested for immunohistochemistry (IHC); has been described to work in FACS and immunoprecipitation.  <b>Approximate working dilution for IHC:</b> Frozen sections: 0.5μg/ml 1:800) Paraffin sections: not tested  Optimal dilutions should be determined by the end user.  Suggested positive control: Human placenta <b>Antigen, epitope:</b> The antigen is CD16.



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**Antigen distribution:**

**Isolated cells:** > 90% of activated human peripheral blood lymphocytes.

**Tissue sections:** In tonsil the antigen is strongly expressed on CD4<sup>+</sup> T-cells in the light zone of the follicle centre, on extrafollicular T-cells, and weakly on mantle zone B-cells. In the spleen, the antigen is found on CD4<sup>+</sup> T-cells in the middle of the marginal zone, while in thymus most of the medullary thymocytes are strongly positive.

**Specificity:**

**Human:** CD16

**Other:** not tested.

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### Selected references

Barclay, Brown et al., The Leukocyte Antigen FactsBook, 2<sup>nd</sup> edition, Harcourt Brace & Company, London, (1997)

Knapp, W. et al. (eds), Leukocyte typing IV., Oxford University Press, Oxford (1989)

For *in vitro* research only. Caution: this product contains sodium azide, a poisonous and hazardous substance.