

## Technical Data Sheet

### PE Conjugated Human CD16a Protein (C-His, 176V)

**Catalog Number:** 800301, 800302  
**Size:** 25 ug, 100 ug  
**Target Name:** CD16A,FCGR3A, FCG3, FCGR3, IGFR3,  
**Regulatory Status:** RUO

#### Product Details

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**Application:** FC  
**Format:** Liquid, PE  
**Expression Host:** HEK293  
**Species:** Human  
**Sources:** Recombinant Human CD16a (Gly17-Gln208, V176) with C-terminus His is expressed in HEK293 cell and conjugated to PE.  
**Accession Number:** P08637  
**Molecular Weight:** The protein has a predicted molecular weight of 25kDa. Under DTT-reducing conditions, it migrates at approximately 40–50 kDa on SDS-PAGE prior to PE conjugation.  
**Affinity Tag:** C-His  
**Formulation:** 1xPBS buffer, pH7.4, 0.09% NaN<sub>3</sub> with a carrier protein  
**Endotoxin level:** Not tested  
**Protein Concentration:** 25µg size is bottled at 0.1mg/mL concentration. 100 µg size is bottled at lot specific concentration.  
**Storage and Handling:** Briefly centrifuge the vial upon receipt. An unopened vial may be stored at 2–8°C for up to six months.

#### Background Information

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CD16 is a low-affinity Fc receptor and exists in two isoforms: FcγRIIIa (CD16a) and FcγRIIIb (CD16b). These receptors bind to the Fc region of IgG antibodies with distinct tissue-specific expression pattern. CD16a is a transmembrane glycoprotein with intermediate affinity, expressed on natural killer (NK) cells, macrophages, subsets of T cells, immature thymocytes, and placental trophoblasts. In contrast, CD16b is a low-affinity, GPI-anchored receptor expressed primarily on neutrophils and eosinophils. CD16a plays a key role in mediating phagocytosis, antibody-dependent cellular cytotoxicity (ADCC), enzyme secretion, and immune complex clearance.