

## Technical Data Sheet

### Human CD16a F176 (C-His-Avi)

**Catalog Number:** 819301, 819302  
**Size:** 25 ug, 100 ug  
**Target Name:** CD16A, FCGR3A, FCG3, FCGR3, IGFR3  
**Regulatory Status:** RUO

#### Product Details

---

**Application:** ELISA, BLI  
**Format:** Liquid, Purified  
**Expression Host:** CHO  
**Species:** Human  
**Sources:** Recombinant CD16a F176 (Gly17-Gln208) with C-terminus His-Avi-tag is expressed in CHO cell.  
**Accession Number:** P08637  
**Molecular Weight:** The protein has a predicted molecular weight of 25.7 kDa. Under DTT-reducing conditions, it migrates at approximately 40 kDa on SDS-PAGE.  
**Affinity Tag:** C-His-Avi  
**Purity:** >95% based on SDS-PAGE under reducing condition  
**Formulation:** 1xPBS buffer, pH7.4, 0.22 µm filtered  
**Endotoxin level:** Not tested  
**Protein Concentration:** 25µg size is bottled at 0.2mg/mL concentration. 100 µg size is supplied at a lot-specific concentration.  
**Storage and Handling:** Briefly centrifuge the vial upon receipt. An unopened vial can be stored at 4°C for up to 2 weeks, or at -20°C or below for up to six months. The protein may be further diluted to 0.1 mg/mL using 0.22 µm-filtered PBS buffer (pH 7.4). For long-term storage, the diluted stock solution should be aliquoted and stored at ≤ -70°C to minimize freeze-thaw cycles. If additional dilution is required, carrier proteins such as FBS or BSA should be added to maintain protein stability.

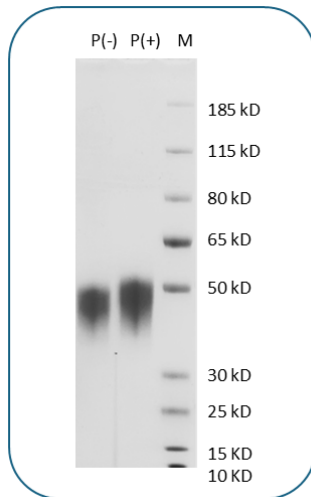
#### Background Information

---

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.

#### Product Data

---



Human CD16a F176 (C-His-Avi) on SDS-PAGE under reducing condition (P+) and non-reducing condition (P-). The gel was stained for 1 hour with BlinkBlue (catalog 700102). The purity of this protein appears to be greater than 95% based on reducing conditions.