

Anti-CD16a, AlpHcAbs[®] Human antibody

Summary

Code	300-516-001
Immunogen	Recombinant human CD16a
Host	Alpaca pacous
Isotype	VHH domain of alpaca IgG2b/2c fused to Human IgG1 Fc(mutation)
Conjugate	Unconjugated
Specificity	Human CD16a
Cross-Reactivity	Cross-reactivity with cynomolgus CD16a
Purity	Recombinant Expression and Affinity purified
Concentration	1mg/ml
Formation	Liquid, 10mM PBS (pH 7.5), 0.05% sucrose, 0.1% trehalose, 0.01% proclin300, 50% Glycerol
Storage	Store at -20 °C, (Avoid freeze / thaw cycles), Stable for 12 months at -20°C

Description

Anti-CD16a, AlpHcAbs[®] Human antibody is designed for detecting human CD16a specifically. Anti-CD16a, AlpHcAbs[®] Human antibody is recombinant VHH domain of alpaca IgG2b/2c fused to Human IgG1 Fc. Based on ELISA, Anti-CD16a, AlpHcAbs[®] Human antibody reacts with human CD16a, and has no reactivity with CD16b.

Background

CD16 (FCGR3A) is a 50-65 kDa cell surface molecule that exists in two forms - a transmembranous form expressed by NK cells and some T cells, and a phosphatidylinositol linked form expressed by granulocytes. CD16 is a low affinity receptor for IgG (FcR III), and is an important receptor mediating ADCC by NK cells. Human CD16 is expressed in two forms – FCGR3A and FCGR3B. FCGR3A is associated with the FcepsilonRI-gamma subunit and is responsible for antibody-dependent NK cell cytotoxicity. Mast cell FCGR3A is associated, with FcepsilonRI-beta subunit. Besides IgG, FCGR3A can be triggered also by oligomeric IgE. FCGR3B is a GPI-linked monomeric receptor expressed on neutrophils and is involved in their activation and induction of a pro-adhesive phenotype. Diseases associated with CD16 dysfunction include immunodeficiency 20 and systemic lupus erythematosus.

Using antibody with Fc(mutation), the background from Fc receptors will be eliminated.

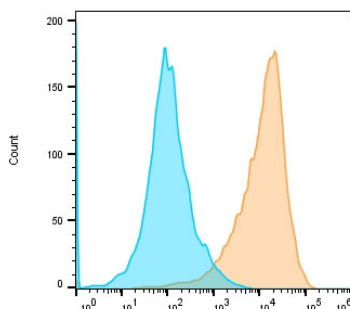
Benefits

- High lot-to-lot consistency
- Increased sensitivity and higher affinity
- Animal-free production

Suggested Working Concentration

ELISA	1:4,000-1:10000
Flow Cytometry	1:200-1:1000

Dilution factors are presented in the form of a range because the optimal dilution is a function of many factors, such as antigen density, permeability, etc. The actual dilution used must be determined empirically.



Flow cytometric analysis of CD16a-overexpressed HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) labeling CD16a with 300-516-001 at 1:10000 dilution(yellow) compared with Human IgG1-Isotype control(green). Anti-Human IgG(H+L),HcAbs[®] Goat antibody(FITC)(023-403-006), at 1/1000 dilution was used as the secondary antibody.

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