

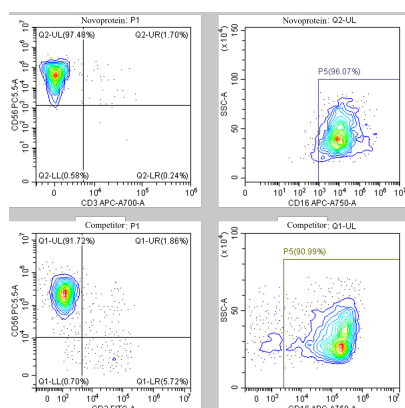
Recombinant anti-Human CD16 mAb(Cat.No.:GMP-A091)

Source: Human Cells

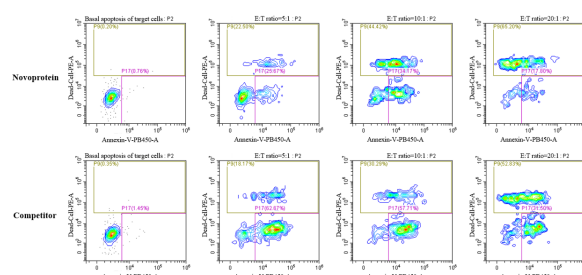
Description: CD16, also known as Fc γ RIII, is an Fc fragment receptor of IgG. It is widely expressed on the surface of NK cells, neutrophil polymorphonuclear leukocytes, mononuclear cells, and macrophages, and is one of the main surface markers of NK cells. CD16 is involved in antibody-dependent cell-mediated cytotoxicity (ADCC) by binding to the Fc of IgG, which in turn activates NK cells. CD16 acts as a low-affinity receptor on the Fc of some IgG to bind to the γ chain of Fc ϵ -associated receptor I of CD3 ζ (ϵ RI of Fc), thus participating in signal transduction. In addition, CD16 can increase the toxicity of NK cells, upregulate the expression of the genes such as IL-2R, IFN-gamma, and TNF-alpha, increase the secretion of corresponding factors, and serve to activate NK cells and promote proliferation in vitro.

Recombinant Anti-Human CD16 mAb is expressed by mammalian cells, and is produced with raw materials of pharmaceutical applicable level. The host protein residue, nucleic acid residue and common pathogens are strictly controlled, and the production and quality management procedures of the product comply with GMP regulations to ensure the traceability of the production process and all raw materials.

Application:



Under identical culture conditions, umbilical-cord-blood-derived NK cells from the same donor were cultured for 14 days with Novoprotein Recombinant anti-Human CD16 mAb (Cat.No.:GMP-A091) and competing products, respectively. Flow cytometry was performed to analyze the proportion of total NK cells and CD16⁺ NK cells.

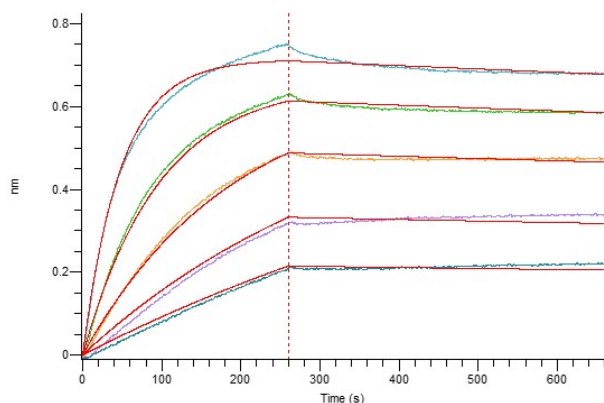


Cytotoxicity against K562 target cells was performed by NK cells harvested on Day 14 at varying effector to target (E:T) ratios. Compared with the comparator product, NK cells expanded with Novoprotein reagent exhibited superior cytotoxic activity toward K562, accompanied by reduced early apoptosis of target cells.

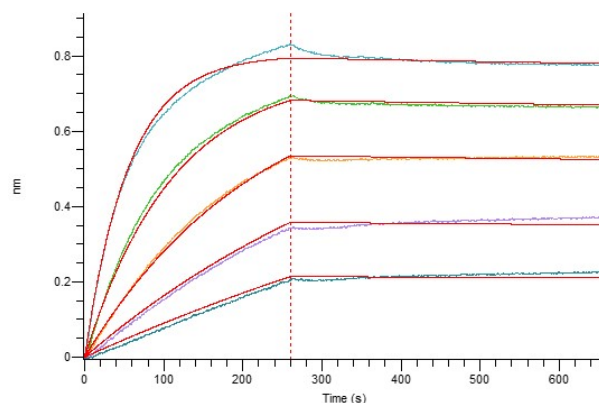
Shipping: This product is a liquid formulation and should be preserved in dry ice during shipment.

Storage: Storage at -20±5°C, expiration date labeled on bottle.

Bioactivity-BLI:



Loaded HumanCD16a (V176)-His(Cat#C441) on HIS1K Biosensor, can bind Anti-Human CD16 mAb(Cat#GMP-A091) with an affinity constant of 0.14 nM as determined in BLI assay. (Regularly tested)



Loaded Human CD16a (F176)-His(Cat#CS11) on HIS1K Biosensor, can bind Anti-Human CD16 mAb(Cat#GMP-A091) with an affinity constant of 0.07 nM as determined in BLI assay. (Regularly tested)

Recommendations:

- (1) Make sure the product properly stored and none expired before using.
- (2) Sterile condition without pyrogen is required for reconstitution, re-aliquoting, dilution.
- (3) After reconstitution, aliquoted solution vials should be stored at -70°C and minimize freeze-thaw cycles preventing denaturation of protein.