reachbio
RESEARCH LABS

NK CELLS OPTIMIZED FOR ADCC ASSAY

Primary CD56+ NK (V158+) Cells

Cat. No.: 0556-110 - Negatively selected CD56+ NK (V158+) cells (5 x 10^6 per vial)
Cat. No.: 0556-210 - Negatively selected CD56+ NK (V158+) cells (10 x 10^6 per vial)

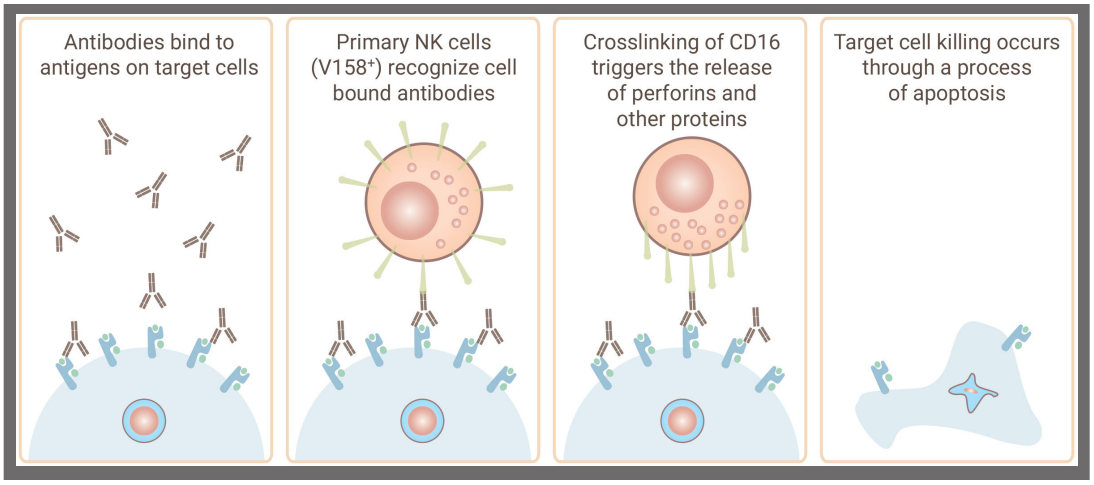
There has been a resurgence in the interest of antibody therapies over the last number of years. Several monoclonal antibody- (mAb)-based drugs, such as anti-tumor necrosis factor (anti-TNF), anti-interleukin-1 (anti-IL-1) receptor and anti-CD20 agents, have been found to be efficacious and approved for the therapy of several immune diseases, including ***rheumatoid arthritis, Crohn's disease and non-Hodgkin lymphoma***.

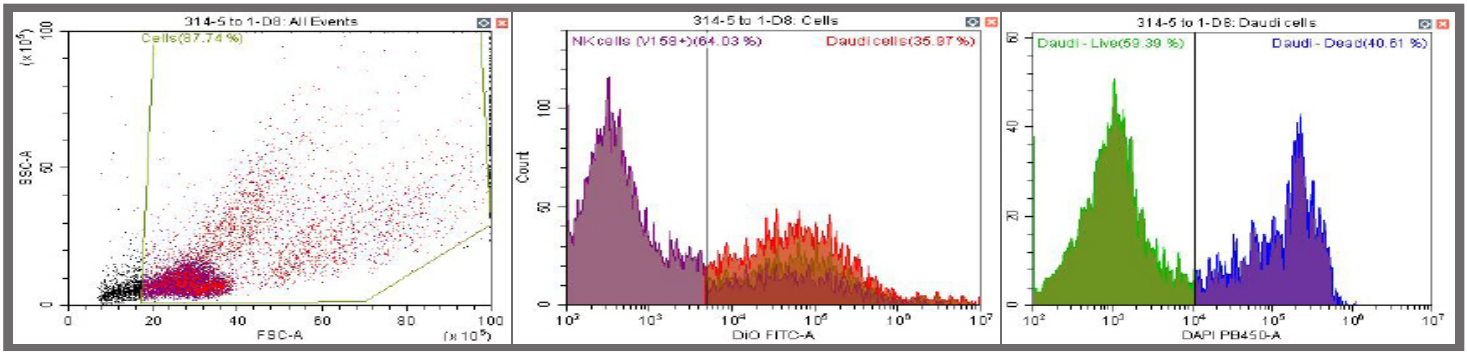
One of the important mechanisms by which antibodies kill targeted tumor cells is through a process called Antibody-Dependent Cell-Mediated Cytotoxicity (ADCC). One of the active **primary cells** in the ADCC assay is a Natural Killer (NK) cell. It was noticed that Rituximab (a mAb targeting CD20), when used in clinical trials, had different outcomes and some of the findings were believed to be related to the numbers and functional activity of the patients NK cell population.

A publication by **Hatjiharissi et al (2007)* showed that in an in vitro ADCC assay that **NK (V158+) cells** derived from humans with various polymorphisms (the presence of valine at position 158 of CD16) rendered the cells **more active**.

At ReachBio, we have sourced, enriched and tested **primary NK (V158+) cells** from normal donors to facilitate your antibody research through ADCC assays. As our criteria is greater than or equal to 90% purity, our **primary NK (V158+) cells** typically displays above 95% purity level.

Diagram of an ADCC Assay





Use of optimized NK cells in ADCC assay. NK (V158+) cells were incubated with DiO-labeled Daudi cells which had been pre-treated with anti-CD20 antibody for 1 hour. Following an 18 hour incubation, the cells were stained with DAPI and the ratio of Live to Dead Daudi cells was determined.

**Hatjiharissi E, Xu L, Santos DD et al, Increased natural killer cell expression of CD16, augmented binding and ADCC activity to rituximab among individuals expressing FcγR111a-158. Blood 110 (7):2561- 2563*

ReachBio Research Labs 123 NW 36th Street, Suite 235 Seattle, WA 98107
Ph: 1.206.420.0300 | Toll Free: 1.877.838.2355 | Fax: 1.206.420.0301 | www.reachbio.com