SONY

Product Data Sheet

APC anti-human CD158d (KIR2DL4)

Catalog # / Size: 2335035 / 25 tests
2335040 / 100 tests

Clone: mAb 33 (33)

Isotype: Mouse IgG1, κ

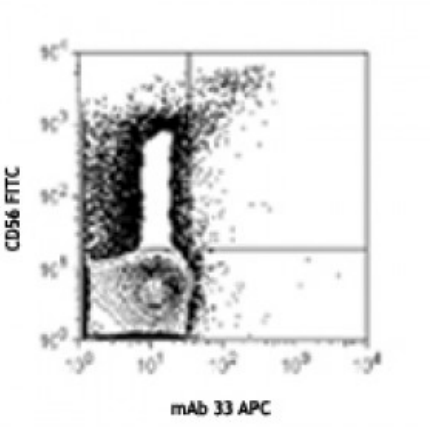
Immunogen: NK3.3 cells and KIR2DL4-Ig fusion protein

Reactivity: Human

Preparation: The antibody was purified by affinity chromatography and conjugated with APC under optimal conditions. The solution is free of unconjugated APC and unconjugated antibody.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

Concentration: Lot-specific



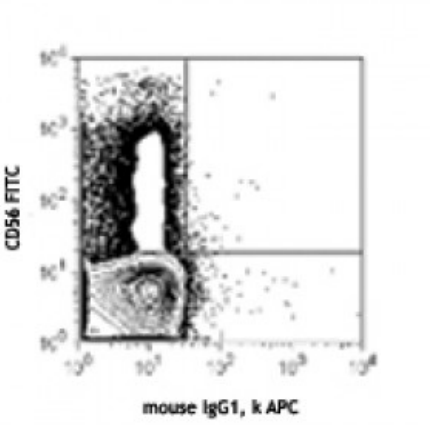
IL-2 stimulated (18hrs) human peripheral blood lymphocytes stained with CD56 FITC and mAb 33 APC (top) or mouse IgG1,κ APC isotype control (bottom)

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. **Test size products are transitioning from 20 microL to 5 microL per test**. Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100 microL staining volume or per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Application Notes: Intracellular staining is recommended to detect KIR2DL4 in NK cells, as this receptor resides predominantly in endosomes3. Alternatively, mAb 33 can be loaded into NK cells by endocytosis at 37°C3. This antibody also induces NK cell cytotoxicity[1,2].



Application References:

1. Rajagopalan S, *et al.* 2001. *J. Immunol.* 167:1877. (FC)
2. Goodridge JP, *et al.* 2003. *J. Immunol.* 171:1768. (FC)
3. Rajagopalan S, *et al.* 2006. *PLoS Biol.* 4:e9.

Description: CD158 molecules, also known as KIRs (killer cell immunoglobulin-like receptors), are a family of transmembrane proteins with either two (KIR2D) or three (KIR3D) Ig-like extracellular domains. Some KIRs, with long cytoplasmic domains, contain ITIMs and possess inhibitory functions and others, with short cytoplasmic regions, lack ITIM and have activation functions. Fourteen polymorphic KIR genes have been reported in humans. KIR2DL4 (CD158d) is a unique receptor which has an

ITIM in its cytoplasmic domain and a charged residue in the transmembrane domain. It possesses both inhibitory and activation functions. Two common alleles (10A and 9A) of KIR2DL4 have been reported. The 10A allele (with 10 adenines at the end of the transmembrane exon) receptor is expressed on $CD56^{high}$ NK subset, whereas its expression on $CD56^{dim}$ NK cells is inducible upon culture. The major 9A allele receptor is a secreted form. HLA-G is the ligand of CD158d.

Antigen References:

1. Rajagopalan S, *et al.* 2006. *PLoS Biol.* 4:e9.
2. Goodridge JP, *et al.* 2007. *Eur. J. Immunol.* 37:199.