

PE anti-human CD158d (KIR2DL4)

Catalog # / Size: 2335025 / 25 tests
2335030 / 100 tests

Clone: mAb 33 (33)

Isotype: Mouse IgG1, κ

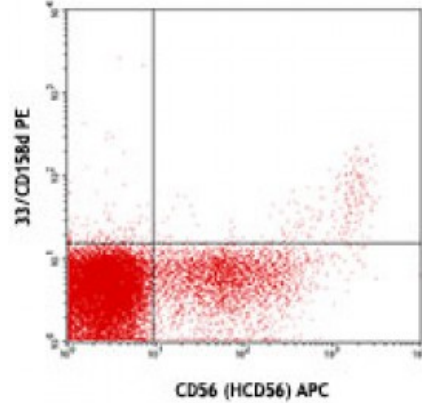
Immunogen: NK3.3 cells and KIR2DL4-Ig fusion protein

Reactivity: Human

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

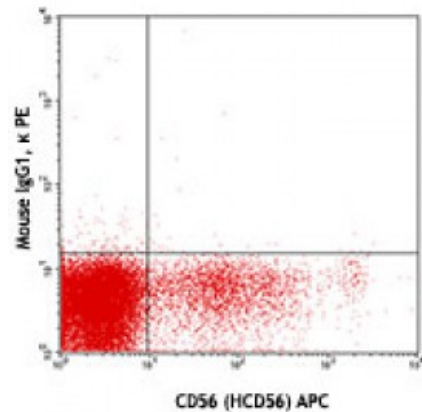


Human peripheral blood lymphocytes were cultured 16 hrs with IL-2, then stained with CD56 (clone HCD56) APC and CD158d (clone 33) PE (top) or mouse IgG1, κ PE isotype control (bottom).

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