TECHNICAL DATA SHEET

CyFlow™ CD158d Purified
Anti-Hu; Clone mAb#33

REF **AT204672**

For Research Use Only.

Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD158d
Alternative Names	KIR2DL4, KIR103, 103AS, 15.212, KIR103AS
Clone	mAb#33
Clonality	monoclonal
Format	Purified
Host / Isotype	Mouse / IgG1
Species Reactivity	Human
Negative Species Reactivity	—
Quantity [Concentration]	0.1 mg [1 mg/ml]
Immunogen	NK3.3 cells and KIR2DL4-Ig fusion protein

Specificity

The mouse monoclonal antibody mAb#33 (also known as mAb 33 or 33) recognizes extracellular portion of CD158d antigen, a 45 kDa NK cell marker. Cell surface expression and function of CD158d depends on genotype of particular individuals.

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Application

Based on published sources, this antibody is suitable for the following applications:

- Flow cytometry
- Immunoprecipitation
- Western blot
- Immunocytochemistry
- Functional assays

Storage Buffer

The reagent is provided in phosphate buffered saline (PBS) solution, pH ≈7.4, containing 0.1% (w/v) sodium azide.

Storage and Stability

Storage	Avoid prolonged exposure to light. Store in the dark at 2-8°C. Do not freeze.
Stability	Do not use after expiration date stamped on vial label.

Background Information

CD158d (KIR2DL4) is a KIR family member that shares structural features with both activating and inhibitory receptors and may mediate different functions under different circumstances. It contains cytoplasmic ITIM, suggesting inhibitory function, but also transmembrane domain similar to those of activating KIRs. It has been reported that CD158d serves as an inhibitory receptor for peripheral and uterine NK cells, but its ligation with soluble mAbs (unlike immobilized mAbs) results in activation of IFN-γ secretion. CD158d also binds both membrane form and soluble form of its ligand HLA-G.

References

- Rajagopalan S, Fu J, Long EO: Cutting edge: induction of IFN-gamma production but not cytotoxicity by the killer cell Ig-like receptor KIR2DL4 (CD158d) in resting NK cells. J Immunol. 2001 Aug 15; 167(4):1877-81. < PMID: 11489965 >
- Goodridge JP, Witt CS, Christiansen FT, Warren HS: KIR2DL4 (CD158d) genotype influences expression and function in NK cells. J Immunol. 2003 Aug 15; 171(4):1768-74. < PMID: 12902476 >
- Yan WH, Fan LA: Residues Met76 and Gln79 in HLA-G alpha1 domain involve in KIR2DL4 recognition. Cell Res. 2005 Mar; 15(3):176-82. < PMID: 15780179 >

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- Rajagopalan S, Bryceson YT, Kuppusamy SP, Geraghty DE, van der Meer A, Joosten I, Long EO: Activation of NK cells by an endocytosed receptor for soluble HLA-G. PLoS Biol. 2006 Jan; 4(1):e9. < PMID: 16366734 >

The Safety Data Sheet for this product is available at www.sysmex-partec.com/services.

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