TECHNICAL DATA SHEET

CyFlow™ CD158f Purified
Anti-Hu; Clone UP-R1

REF **CA469346**

For Research Use Only.

Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD158f
Alternative Names	KIR2DL5, KIR2DL5.1, DIR2KL5.3
Clone	UP-R1
Clonality	monoclonal
Format	Purified
Host / Isotype	Mouse / IgG1
Species Reactivity	Human
Negative Species Reactivity	—
Quantity [Concentration]	0.1 mg [1 mg/ml]
Immunogen	Human CD158f-Ig fusion protein

Specificity

The mouse monoclonal antibody UP-R1 recognizes CD158f antigen, a 60 kDa glycoprotein serving as a HLA class I ligand, and mainly expressed on a subset of NK cells and a small population of T cells. Its expression is highly polymorphic between individuals.

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Application

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

- Flow cytometry
- Immunocytochemistry

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

CD158f (KIR2DL5) is a polymorphic 60 kDa transmembrane glycoprotein with two Ig-like extracellular domains by which it recognize HLA class I molecules. Its long intracellular domain contains immunoreceptor tyrosine-based inhibitory motifs (ITIMs) that upon extracellular ligand-mediated phosphorylation serve as docking sites for inhibitory phosphatases, which results in blocking natural cytotoxicity as well as antibody-dependent cytotoxicity of the particular NK cell, and its adhesion toward target cells. Together with other killer inhibitory receptors CD158f is important for immunological tolerance to discriminate between normal and abnormal cells. Besides NK cells it is expressed on a small population of cytotoxic T cells. Expression of CD158f alleles is highly variable in the population.

References

- Yusa S, Catina TL, Campbell KS: KIR2DL5 can inhibit human NK cell activation via recruitment of Src homology region 2-containing protein tyrosine phosphatase-2 (SHP-2). J Immunol. 2004 Jun 15; 172(12):7385-92. < PMID: 15187115 >
- Estefanía E, Flores R, Gómez-Lozano N, Aguilar H, López-Botet M, Vilches C: Human KIR2DL5 is an inhibitory receptor expressed on the surface of NK and T lymphocyte subsets. J Immunol. 2007 Apr 1; 178(7):4402-10. < PMID: 17371997 >
- Du Z, Sharma SK, Spellman S, Reed EF, Rajalingam R: KIR2DL5 alleles mark certain combination of activating KIR genes. Genes Immun. 2008 Jul; 9(5):470-80. < PMID: 18509341 >

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

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