

1A-774-T100

## Monoclonal Antibody to CD158f Allophycocyanin (APC) conjugated (100 tests)

Clone: UP-R1

Isotype: Mouse IgG1

Specificity: The mouse monoclonal antibody UP-R1 recognizes CD158f (KIR2DL5), 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.

Regulatory Status: RUO

Immunogen: Human CD158f-lg fusion protein

Species Reactivity: Human

**Preparation:** The purified antibody is conjugated with cross-linked Allophycocyanin (APC) under

optimum conditions. The conjugate is purified by size-exclusion chromatography

and adjusted for direct use. No reconstitution is necessary.

Storage Buffer: The reagent is provided in stabilizing phosphate buffered saline (PBS) solution

containing 15mM sodium azide.

Storage / Stability: Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not

use after expiration date stamped on vial label.

Usage: The reagent is designed for Flow Cytometry analysis of human blood cells using

10 μl reagent / 100 μl of whole blood or 10° cells in a suspension.

The content of a vial (1 ml) is sufficient for 100 tests.

**Expiration:** See vial label

Lot Number: See vial label

Background: CD158f, also known as 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: \*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. \*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.

\*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.

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