

1P-775-T100

## Monoclonal Antibody to CD158agh Phycoerythrin (PE) conjugated (100 tests)

Clone: HP-MA4

**Isotype:** Mouse IgG2b

Specificity: The mouse monoclonal antibody HP-MA4 recognizes CD158 isoforms KIR2DL1

(CD158a), KIR2DS5 (CD158g), KIR2DS1 (CD158h), and KIRDS3. It does not

recognize the isoforms CD158b1,d,f,i,j.

Regulatory Status: RUO

Immunogen: Human NK cell line LB2

Species Reactivity: Human

Preparation: The purified antibody is conjugated with R-Phycoerythrin (PE) 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<sup>6</sup> 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: Killer cell immunoglobulin-like receptors (KIRs) are polymorphic transmembrane

glycoproteins expressed by natural killer cells and subsets of T cells. They are classified by the number of extracellular immunoglobulin domains (2D or 3D) and by whether they have a long (L) or short (S) cytoplasmic domain. KIR proteins with the long cytoplasmic domain (such as CD158a / KIR2DL1) transduce inhibitory signals upon ligand binding via an immune tyrosine-based inhibitory motif (ITIM), while KIR proteins with the short cytoplasmic domain (such as CD158g / KIR2DS5, CD158h / KIR2DS1, or KIR2DS3) lack the ITIM motif and instead associate with the TYRO protein tyrosine kinase binding protein to transduce activating signals.

The ligands for CD158 isoforms are subsets of MHC class I molecules.

**References:** \*Wiernik A, Foley B, Zhang B, Verneris MR, Warlick E, Gleason MK, Ross JA, Luo

X, Weisdorf DJ, Walcheck B, Vallera DA, Miller JS: Targeting natural killer cells to acute myeloid leukemia in vitro with a CD16 x 33 bispecific killer cell engager and

ADAM17 inhibition. Clin Cancer Res. 2013 Jul 15;19(14):3844-55

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