

TECHNICAL DATA SHEET

CyFlow™ CD161 PE Anti-Hu; Clone HP-3G10

REF AY505662

For Research Use Only.
Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD161
Alternative Names	NKR-P1A, NKRP1A, NKR
Clone	HP-3G10
Clonality	monoclonal
Format	PE
Host / Isotype	Mouse / IgG1
Species Reactivity	Human, Non-Human Primates
Negative Species Reactivity	—
Quantity	100 tests
Immunogen	Human NK cells

Specificity

The mouse monoclonal antibody HP-3G10 recognizes CD161 antigen, a type II transmembrane C-type lectin receptor, expressed on the plasma membrane of NK cells, dendritic cells, activated monocytes and a subset of T cells as a disulphide-linked homodimer.

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Application

The reagent is designed for Flow Cytometry analysis of human blood cells. Recommended usage is 10 µl reagent / 100 µl of whole blood or 10⁶ cells in a suspension. The content of a vial (1 ml) is sufficient for 100 tests.

Other usages may be determined from the scientific literature.

Storage Buffer

The reagent is provided in stabilizing 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

CD161 (Nkrp1; natural killer receptor protein 1 or Klrb1; killer cell lectin-like receptor subfamily b member 1) is a disulphide-linked homodimeric receptor, which is involved in regulation of NK cell and NKT cell function. It is expressed on rat NK cells, subset of T cells, dendritic cells, and activated monocytes. Although human CD161 is expressed as one isoform, the rat CD161 has three isoforms, referred to as CD161a, b, and c. These proteins contain C-terminal C-type lectin extracellular domain, a transmembrane domain, and N-terminal intracellular domain, which contains ITIM motif, such as CD161b, and displays inhibitory function, or does not contain ITIM motif, thus also not the inhibitory function, such as CD161a.

References

- Pozo D, Valés-Gómez M, Mavaddat N, Williamson SC, Chisholm SE, Reyburn H: CD161 (human NKR-P1A) signaling in NK cells involves the activation of acid sphingomyelinase. J Immunol. 2006 Feb 15; 176(4):2397-406. < PMID: 16455998 >
- Goetzel EJ, Huang MC, Kon J, Patel K, Schwartz JB, Fast K, Ferrucci L, Madara K, Taub DD, Longo DL: Gender specificity of altered human immune cytokine profiles in aging. FASEB J. 2010 Sep; 24(9):3580-9. < PMID: 20453111 >

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- Fogal B, Yi T, Wang C, Rao DA, Lebastchi A, Kulkarni S, Tellides G, Pober JS: Neutralizing IL-6 reduces human arterial allograft rejection by allowing emergence of CD161(+) CD4(+) T regulatory cells. J Immunol. 2011 Dec 15; 187(12):6268-6280. < PMID: 22084439 >
- Tresoldi E, Dell'Albani I, Stabilini A, Jofra T, Valle A, Gagliani N, Bondanza A, Roncarolo MG, Battaglia M: Stability of human rapamycin-expanded CD4+CD25+ T regulatory cells. Haematologica. 2011 Sep; 96(9):1357-65. < PMID: 21565906 >
- Germain C, Meier A, Jensen T, Knapnougel P, Poupon G, Lazzari A, Neisig A, Hakansson K, Dong T, Wagtmann N, Galsgaard ED, Spee P, Braud VM: Induction of lectin-like transcript 1 (LLT{01} protein cell surface expression by pathogens and interferon- γ contributes to modulate immune responses. J Biol Chem. 2011 Nov 4; 286(44):37964-75. < PMID: 21930700 >
- Wong EB, Akilimali NA, Govender P, Sullivan ZA, Cosgrove C, Pillay M, Lewinsohn DM, Bishai WR, Walker BD, Ndung'u T, Klenerman P, Kasprovicz VO: Low Levels of Peripheral CD161++CD8+ Mucosal Associated Invariant T (MAIT) Cells Are Found in HIV and HIV/TB Co-Infection. PLoS One. 2013 Dec 31; 8(12):e83474. < PMID: 24391773 >

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

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