

A6-729-T100

Monoclonal Antibody to CD161 Alexa Fluor® 647 conjugated (100 tests)

Clone: HP-3G10

Isotype: Mouse IgG1

- **Specificity:** The mouse monoclonal antibody HP-3G10 recognizes CD161, 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.
- Regulatory Status: RUO

Immunogen: human NK cells

- Species Reactivity: Human, Non-Human Primates
- **Preparation:** The purified antibody is conjugated with Alexa Fluor® 647 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 4 μ l reagent / 100 μ l of whole blood or 10⁶ cells in a suspension. The content of a vial (0.4 ml) is sufficient for 100 tests.
- **Expiration:** See vial label

Lot Number: See vial label

Background: CD161, also known as 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 a majority of NK cells, NKT cells, and e.g. Th17 cells and CD3+ thymocytes. Although rat CD161 has three isoforms (a, b, c), the human CD161 is expressed as one isoform.

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Antibodies 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.

*Germain C, Meier A, Jensen T, Knapnougel P, Poupon G, Lazzari A, Neisig A, Håkansson K, Dong T, Wagtmann N, Galsgaard ED, Spee P, Braud VM: Induction of lectin-like transcript 1 (LLT1) protein cell surface expression by pathogens and interferon-γ contributes to modulate immune responses. J Biol Chem. 2011 Nov 4;286(44):37964-75

*Wong EB, Akilimali NA, Govender P, Sullivan ZA, Cosgrove C, Pillay M, Lewinsohn DM, Bishai WR, Walker BD, Ndung'u T, Klenerman P, Kasprowicz 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

*Birgit Fogal, Tai Yi, Chen Wang, Deepak A. Rao, Amir Lebastchi, Sanjay Kulkarni, George Tellides, Jordan S. Pober: Neutralizing IL-6 reduces human arterial allograft rejection by allowing emergence of CD161(+) CD4(+) T regulatory cells. J Immunol. 2011 December 15; 187(12): 6268–6280.

*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.

*Goetzl 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.

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