www.innocyto.com.cn

InnoCyto Inc.

15375 Barranca Pkwy, Suite I-103
Irvine, CA 92618
Email: info@innocyto.com
Phone: 1-949-418-7543

Anti-human CD161 Antibody

Catalog Number:	114701, 114702
Size:	25 μg, 100 μg
Target Name:	CD161, NKR-P1A, KLRB1
Regulatory Status:	RUO

PRODUCT DETAILS

Clone:	HP-3G10
Application:	Flow Cytometry
Reactivity:	Human
Format:	Purified
Isotype:	Mouse IgG1
Antibody Type:	Monoclonal
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Protein Concentration:	0.5 mg/mL
Storage&Handling:	The antibody solution should be stored between 2°C and 8°C
Recommended Usage:	For flow cytometric staining, it is recommended to use less than 0.2 ug of this reagent per 0.5-1.0 million cells in a 100 µL volume. Optimal reagent performance should be determined by titration for each specific application
Isotype Controls:	301401
Antibody Family:	Human Antibodies

BACKGROUND INFORMATION

CD161, also known as KLRB1 (killer cell lectin-like receptor subfamily B member 1), is a C-type lectin receptor expressed on natural killer (NK) cells, subsets of T cells—including mucosal-associated invariant T (MAIT) cells—and some Th17 cells. It plays a role in modulating immune responses, particularly in balancing activation and inhibition during immune surveillance and inflammation.

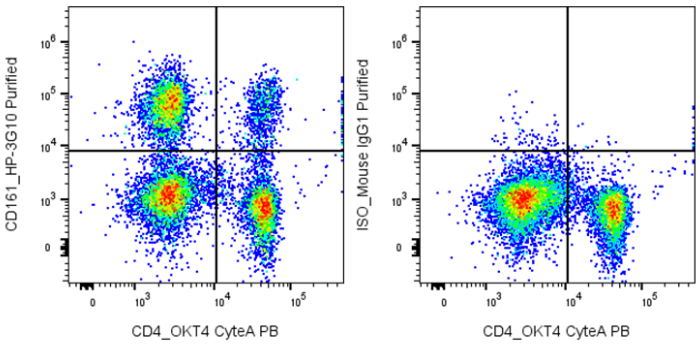
Structurally, CD161 is a type II transmembrane protein with a short N-terminal cytoplasmic domain, a single transmembrane region, and an extracellular C-type lectin-like domain responsible for ligand binding. Unlike classical lectins, it does not bind carbohydrates in a calcium-dependent manner but instead recognizes protein ligands.

The primary ligand for CD161 is LLT1 (lectin-like transcript 1, CLEC2D), which is expressed on activated immune cells such as B cells, dendritic cells, and some tumor cells. Interaction between CD161 and LLT1 generally delivers inhibitory signals that can dampen NK and T-cell cytotoxicity and cytokine production, although context-dependent activating effects have also been reported.

In disease, CD161 is implicated in autoimmune disorders, infectious diseases, and cancer. Its expression marks IL-17–producing T cells involved in inflammatory pathology. In tumors, CD161–LLT1 interactions may contribute to immune evasion. Therapeutically,

targeting this pathway is under investigation to enhance anti-tumor immunity or modulate inflammatory responses.

PRODUCT DATA



Human peripheral blood lymphocytes were stained with PB anti-Human CD4 clone OKT4 and Purified anti-Human CD161 clone HP-3G10 (left) or an isotype control (right) , followed by PE anti-Mouse IgG.

This product is supplied subject to the terms and conditions at www.innocyto.com.cn/web/terms.php and may only be used as provided in the stated terms. Products are for Research Use Only.