

KLRB1 Monoclonal Antibody (B199.2)

Catalog Number MA1-81379

Product data sheet

Details		Species Reactivity	
Size	100 µg	Species reactivity	Human
Host/Isotope	Mouse / IgG1	Tested Applications	
Class	Monoclonal	Flow Cytometry (Flow)	1:50-1:100
Type	Antibody	Immunohistochemistry (Frozen) (IHC (F))	Assay-dependent
Clone	B199.2	Immunoprecipitation (IP)	Assay-dependent
Immunogen	Proprietary Immunogen.	* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.	
Conjugate	Unconjugated		
Form	Liquid		
Concentration	1 mg/mL		
Purification	Protein A		
Storage buffer	PBS		
Contains	0.09% sodium azide		
Storage Conditions	Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.		

Product specific information

For FACS analysis, use 10 µL of the suggested working dilution to label 1x10⁶ cells in 100 µL. Mouse anti Human CD161 antibody, clone B199.2 recognizes the human Killer cell lectin-like receptor subfamily B member 1, also known as CD161, C-type lectin domain family 5 member B, HNKRP-1A, NKR-P1A or Natural killer cell surface protein P1A.

Background/Target Information

KLRB1 (Killer cell lectin like receptor subfamily B, member 1, CD-161) protein is classified as a type II membrane protein because it has an external C terminus. KLRB1 cell surface antigen is expressed by almost all NK cells and in a small subset of CD3+ve T cells. KLRB1 is a homodimeric cell surface protein, comprising two chains with molecular weights ranging from 40-44kDa. KLRB1 plays an inhibitory role on natural killer (NK) cells. Activation of KLRB1 leads to acid sphingomyelinase/SMPD1 stimulation and an increase in intracellular ceramide. Moreover, there is also an activation of AKT1/PKB and RPS6KA1/RSK1 kinase stimulation, and T cell proliferation by anti-CD3. KLRB1 acts as a lectin that binds to the terminal carbohydrate Gal-alpha (1,3)Gal epitope and to the N-acetyllactosamine epitope. KLRB1 also binds to CLEC2D/LLT1 as a ligand, and inhibits NK cell-mediated cytotoxicity as well as interferon-gamma secretion in target cells. The KLRB1 protein contains an extracellular domain with several motifs characteristic of C-type lectins, a transmembrane domain, and a cytoplasmic domain.

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