ARG23128
anti-CD19 antibody [LE-CD19]

Package: 100 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [LE-CD19] recognizes CD19 Mouse anti Human CD19 antibody, clone LE-CD19 recognizes an epitope within the C-terminal cytoplasmic tail sequence of human CD19, a single pass type I transmembrane glycoprotein containing two C2 type Ig-like domains in the N-terminal extracellular region and four potential phosphorylation sites for tyrosine together with a single serine in the cytoplasmic region.Human CD19 is expressed on virtually all cells of the B-cell lineage with the exception of plasma cells and plays a regulatory role in B-cell differentiation and prloliferation.B-cells are essential for antibody production and mutations in the CD19 gene can lead to an immunodeficiency syndrome, CIVD3 characterized by hypogammaglobulinemia leading to recurrent infections and the inability to mount an antibody mediated response to immune insult. Although immunoglobulin production is impaired B-cell precursors appear in normal numbers together with some reduction in more mature B-cell forms (van Zelm et al. 2006). B-cells have also been implicated in the progression and pathogenesis of multiple sclerosis and are common components of both active and chronic MS lesions and well as the CSF (Ritchie et al. 2004)Mouse anti Human CD19 antibody, clone LE-CD19 has been successfully employed for the immunohistochemical demonstration of CD19 in formalin fixed, paraffin embedded tissues (Streeck, H. et al. 2011) and for the detection of CD19 in cell lysates by Western blotting.
Tested Reactivity	Hu
Tested Application	ELISA, FACS, IHC-P, IP, WB
Host	Mouse
Clonality	Monoclonal
Clone	LE-CD19
Isotype	IgG1
Target Name	CD19
Species	Human
Immunogen	KLH-conjugated synthetic peptide around the C-terminus of Human CD19. (CGPDPAWGGGGRMGTWSTR)
Conjugation	Un-conjugated
Alternate Names	Differentiation antigen CD19; T-cell surface antigen Leu-12; B-lymphocyte antigen CD19; B-lymphocyte surface antigen B4; B4; CD antigen CD19; CVID3

Application Instructions

Application table

Application	Dilution
ELISA	Assay-dependent
FACS	1:100 - 1:200
IHC-P	1:100 - 1:200
IP	Assay-dependent
WB	Assay-dependent

Application Note: FACS: Membrane permeabilisation is required for this application. Use 10 µl of the suggested working

dilution to label 10^6 cells in 100 µl.
IHC-P: Antigen Retrieval: Boil tissue section in Sodium citrate buffer (pH 6.0).
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

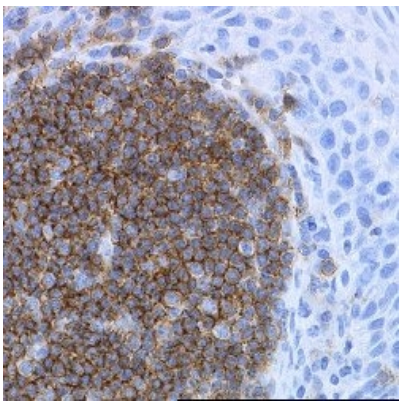
Properties

Form	Liquid
Purification	Purification with Protein G.
Buffer	PBS and 0.09% Sodium azide.
Preservative	0.09% Sodium azide
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

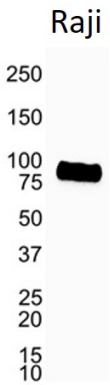
Gene Symbol	CD19
Gene Full Name	CD19 molecule
Background	CD19: Lymphocytes proliferate and differentiate in response to various concentrations of different antigens. The ability of the B cell to respond in a specific, yet sensitive manner to the various antigens is achieved with the use of low-affinity antigen receptors. This gene encodes a cell surface molecule which assembles with the antigen receptor of B lymphocytes in order to decrease the threshold for antigen receptor-dependent stimulation. [provided by RefSeq, Jul 2008]
Function	CD19 functions as coreceptor for the B-cell antigen receptor complex (BCR) on B-lymphocytes. Decreases the threshold for activation of downstream signaling pathways and for triggering B-cell responses to antigens (PubMed:2463100, PubMed:1373518, PubMed:16672701). Activates signaling pathways that lead to the activation of phosphatidylinositol 3-kinase and the mobilization of intracellular Ca(2+) stores (PubMed:9382888, PubMed:9317126, PubMed:12387743, PubMed:16672701). Is not required for early steps during B cell differentiation in the blood marrow (PubMed:9317126). Required for normal differentiation of B-1 cells. Required for normal B cell differentiation and proliferation in response to antigen challenges (PubMed:2463100, PubMed:1373518). Required for normal levels of serum immunoglobulins, and for production of high-affinity antibodies in response to antigen challenge (PubMed:9317126, PubMed:12387743, PubMed:16672701). [UniProt]
Highlight	Related Antibody Duos and Panels: ARG30306 Pro-B Cell Marker Antibody panel (CD19, CD34, CD38, CD40, CD45) (FACS) ARG30307 Pre-B Cell Marker Antibody Panel (CD19, CD25, CD38, CD40, CD45) (FACS) ARG30308 Immature B Cell Marker Antibody Panel (CD19, CD20, CD22, IgM Fc) (FACS) ARG30313 General Lymphocyte Marker Antibody Panel (CD3, CD14, CD16, CD19, CD56) Related products: CD19 antibodies; CD19 ELISA Kits; CD19 Duos / Panels; Anti-Mouse IgG secondary antibodies; Related news: Lymphoma Tumor-Infiltrating Lymphocytes (TILs)
Research Area	Developmental Biology antibody; Immune System antibody; Lymphocyte Marker antibody; B cell Marker antibody; Pro-B Cell Marker antibody; Pre-B Cell Marker antibody; Immature B Cell Marker antibody; Follicular dendritic cells antibody
Calculated Mw	61 kDa
PTM	Phosphorylated on serine and threonine upon DNA damage, probably by ATM or ATR. Phosphorylated on tyrosine following B-cell activation. Phosphorylated on tyrosine residues by LYN. [UniProt]

Images



ARG23128 anti-CD19 antibody [LE-CD19] IHC-P image

Immunohistochemistry: Formalin-fixed and paraffin-embedded Human tonsil stained with ARG23128 anti-CD19 antibody [LE-CD19].



ARG23128 anti-CD19 antibody [LE-CD19] WB image

Western blot: Raji Human Lymphoblastic Burkitt's lymphoma whole cell lysate stained with ARG23128 anti-CD19 antibody [LE-CD19].