

10-4075: Monoclonal Antibody to Human CD19 (Clone: CB19)

Clonality :	Monoclonal
Clone Name :	CB19
Application :	FACS,WB
Reactivity :	Human
Gene :	CD19
Gene ID :	930
Uniprot ID :	P15391
Format :	Purified
Alternative Name :	B-lymphocyte antigen CD19,B-lymphocyte surface antigen B4,Differentiation antigen CD19,T-cell surface antigen Leu-12,CD19
Isotype :	Mouse IgG1 kappa
Immunogen Information :	Intact normal human B cell cells were used as immunogen for this antibody.

Description

CD19 is a B-cell specific cell-surface molecule of the Ig superfamily expressed by early pre-B cells in humans and mice until plasma cell differentiation. It plays a crucial role in mature B cell development as best exemplified by the finding that CD19 deficient mice have severely reduced mature B cell compartments. CD19 is specifically expressed in normal and neoplastic lymphoid cells. Human CD19 and mouse CD19 are functionally equivalent in vivo. Too high CD19 expression might result into too strong BCR signaling in the bone marrow and therefore causing negative selection. Too low CD19 expression might result into too little BCR signaling and thereby preventing the B cells to enter the mature pool (absence of positive selection). CD19 functions as the dominant signaling component of a multimolecular complex on the surface of mature B cells, alongside complement receptor CD21, and the tetraspanin membrane protein CD81 (TAPA-1), as well as CD225. CD19 plays a critical role in maintaining the balance between humoral, antigen-induced response and tolerance induction.

Product Info

Amount :	25 µg / 100 µg
Purification :	Protein G Chromatography
Content :	25 µg in 50 µl/100 µg in 200 µl PBS containing 0.05% BSA and 0.05% sodium azide. Sodium azide is highly toxic.
Storage condition :	Store the antibody at 4°C, stable for 6 months. For long-term storage, store at -20°C. Avoid repeated freeze and thaw cycles.

Application Note

WB: 4-6 µg/ml, FACS: 0.5-1 µg/10⁶

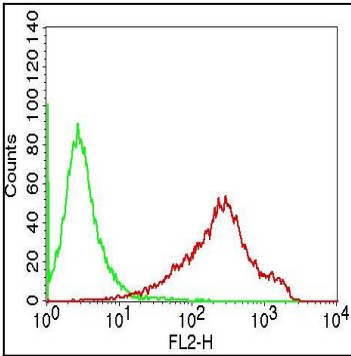


Figure-1: Surface flow cytometric analysis of CD19 on Raji cells using 0.5 μg antibody per 10^6 cells of antibody (Clone: CB19). Green represents isotype control; red represents anti-CD19 antibody (10-4075). Goat anti-mouse PE conjugate secondary antibody was used.

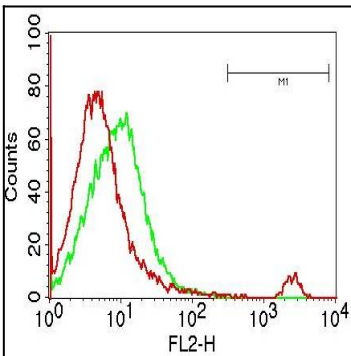


Figure-2: Cell Surface flow staining of hCD19 in PBMCs (lymphocytes gated) using 0.5 μg antibody per 10^6 cells of antibody (Clone: CB19). Green represents isotype control (ABEOMICS); red represents anti-hCD19 antibody (10-4075). Goat anti-mouse PE conjugate secondary antibody was used.

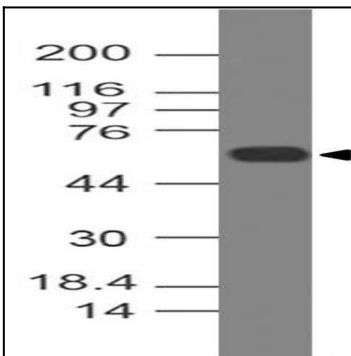


Figure-3: Western blot analysis of hCD19. Anti-hCD19 antibody (Clone: CB19) was used at 2 $\mu\text{g}/\text{ml}$ on Daudi lysate.