

10-4006: Monoclonal antibody to Mouse CD19 (Clone: 1D3)

Clonality :	Monoclonal
Clone Name :	1D3
Application :	FACS
Reactivity :	Mouse
Gene :	Cd19
Gene ID :	12478
Uniprot ID :	P25918
Format :	Purified
Alternative Name :	Cd19
Isotype :	Rat IgG2a Kappa
Immunogen Information :	Recombinant mouse CD19-transfected cell line was used as an 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

FACS Analysis: 0.5-1 µg/10⁶ cells

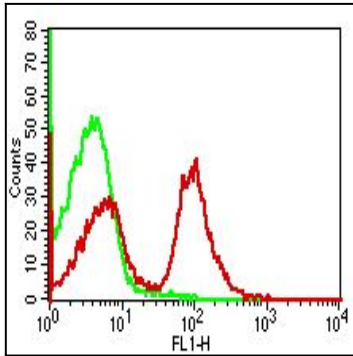


Fig:1- Cell surface flow analysis of mCD19 in mouse splenocytes using 0.5 $\mu\text{g}/10^6$ cells of mCD19 antibody (Clone: 1D3). Green represents isotype control; red represents anti-mCD19 antibody (10-4006). Goat anti Rat FITC conjugate was used as secondary antibody (ABEOMICS).