

# anti-human CD19

## Monoclonal Antibody HI19a to CD19 (Human)

Cat-No: **21810191**

100 µg in 100 µl

**Clone:** HI19a

**Specificity:** The CD19 antibody recognizes a 95-kDa type-I transmembrane glycoprotein which is restricted to B cell antigen. CD19 antigen is expressed on normal and neoplastic B cells and also in some bone marrow cells. CD19 expression by B progenitor cells is presumably at late pro-B or early pre-B stages around the time of Ig heavy chain rearrangement. Expression persists during all stages of B cell maturation and is lost on terminal differentiation to plasma cells. CD19 antigen is also found on the follicular dendritic cells and the early cells of myelomonocytic lineage but not on normal T cells, NK cells, monocytes, granulocytes, erythrocytes and platelets. In normal peripheral blood, 8-20% of lymphocytes express CD19 antigen. CD19 antigen plays a role in regulating B cell proliferation.

**Isotype subclass:** Mouse IgG1, k

**Form:** The antibody was purified by protein G affinity chromatography.

**Physical state:** Liquid

**Buffer/Additives/Preservative:** PBS containing 0.09% sodium azide (pH 7.2)

**Expiration date:** The reagent is stable until the expiry date stated on the vial label

**Application:** Flow Cytometry

**References:** Leucocyte Typing V. Schlossman S. et al. (Eds.), Oxford University Press (1995).

**Background:** **CD19** is a transmembrane glycoprotein of Ig superfamily expressed by B cells from the time of heavy chain rearrangement until plasma cell differentiation. It forms a tetrameric complex with CD21 (complement receptor type 2), CD81 (TAPA-1) and Leu13. Together with BCR (B cell antigen receptor), this complex signals to decrease B cell threshold for activation by the antigen. Besides being signal-amplifying coreceptor for BCR, CD19 can also signal independently of BCR coligation and it turns out to be a central regulatory component upon which multiple signaling pathways converge. Mutation of the CD19 gene results in hypogammaglobulinemia, whereas CD19 overexpression causes B cell hyperactivity.

**Warning:** Sodium azide is harmful if swallowed (R22). Keep out of reach of children (S2). Keep away from food, drink and animal feeding stuff (S13). Wear suitable protective clothing (S36). If swallowed, seek medical advice immediately and show this container or label (S46). Contact with acids liberates very toxic gas (R32). Azide compounds should be flushed with large volumes of water during disposal to avoid deposits in lead or copper plumbing where explosive conditions can develop.

This material is offered for **research use only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

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