

## BF488 Mouse Anti-Human CD19

Purified BF488-conjugated Recombinant Mouse Monoclonal Antibody

Catalog # F100606

### Product Information

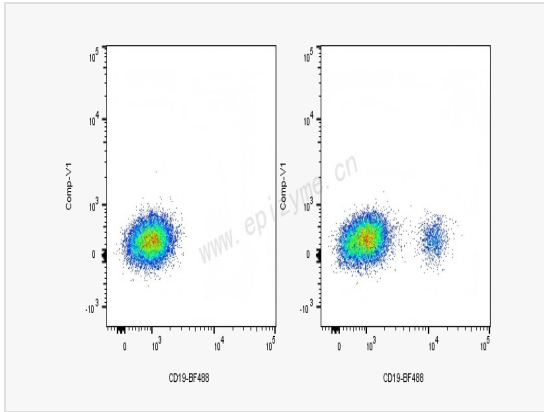
Application	FC
Recommended Usage	5 $\mu$ L per million cells in 100 $\mu$ L staining volume or 5 $\mu$ L per 100 $\mu$ L of whole blood.
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone No.	66E25M53
Isotype	IgG1, $\kappa$
Label	BF488 (Ex/Em: 494/517 nm)
Immunogen	Recombinant protein of human CD19
Format	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA.
Storage	Shipped on wet ice. Store undiluted between 2°C and 8°C and protected from prolonged exposure to light. Do not freeze.
Precautions	BF488 Mouse Anti-Human CD19 [66E25M53] is for research use only and not for use in diagnostic or therapeutic procedures.

### Protein Information

Synonyms	Antibody deficiency due to defect in CD19, Antibody deficiency due to defect in CD19, included, AW495831, B lymphocyte antigen CD19, B lymphocyte surface antigen B4, B-lymphocyte antigen CD19, B-lymphocyte surface antigen B4, B4, CD19, CD19 antigen, CD19 molecule, Cd19 protein, CD19_HUMAN, CVID3, Differentiation antigen CD19, Leu 12, Leu-12, Leu12, MGC109570, MGC12802, T-cell surface antigen Leu-12.
Uniprot ID	P15391
Gene ID	930
Background	This gene encodes a member of the immunoglobulin gene superfamily. Expression of this cell surface protein is restricted to B cell lymphocytes. This protein is a reliable marker for pre-B cells but its expression diminishes during terminal B cell differentiation in antibody secreting plasma cells. The protein has two N-terminal extracellular Ig-like domains separated by a non-Ig-like domain, a hydrophobic transmembrane domain, and a large C-terminal cytoplasmic domain. This protein forms a complex with several membrane proteins including complement receptor type 2 (CD21) and tetraspanin (CD81) and this complex reduces the threshold for antigen-initiated B cell activation. Activation of this B-cell antigen receptor complex activates the phosphatidylinositol 3-kinase signalling pathway and the subsequent release of intracellular stores of calcium ions. This protein is a target of chimeric antigen receptor (CAR) T-cells used in the treatment of lymphoblastic leukemia. Mutations in this gene are associated with the disease common variable immunodeficiency 3 (CVID3) which results in a failure of B-cell differentiation and impaired secretion of immunoglobulins. CVID3 is characterized by hypogammaglobulinemia, an inability to mount an antibody response to antigen, and recurrent bacterial infections. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Jul 2020]

## Validation Images

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Typical flow-cytometry plots of human peripheral-blood leukocytes stained with anti-CD19-BF488 (F100606) (right) compared to unstained control (left).