

DESCRIPTION

Species Reactivity	Rat
Specificity	Detects rat CD19 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human CD19 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 771404
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant rat CD19 Met1-Gly287 Accession # NP_001013255
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

CD19 (also surface antigen B4 and Leu12) is a 95-110 kDa member of the Immunoglobulin superfamily of molecules. It is expressed by B cells, and interacts with CD21 for the purpose of reducing the threshold of the antigen signal needed to with activate the BCR. CD19 ligation also promotes B cell:follicular dendritic cell (FDC) interaction and B cell proliferation in the FDC zone of the spleen. Mature rat CD19 is a 529 amino acid (aa) type I transmembrane glycoprotein (aa 19-547). Based on mouse, it contains a 269 aa extracellular region (aa 19-287) plus a 236 aa cytoplasmic domain. The extracellular region possesses two C2-type Ig-like domains (aa 20-113 and 171-271) and one utilized phosphorylation site at Ser225. The cytoplasmic domain contains five potential Tyr phosphorylation sites. There is one splice form that shows a two aa substitution after Gly489. Over aa 19-287, rat CD19 shares 88% and 57% aa sequence identity with mouse and human CD19, respectively.

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