

## DESCRIPTION

|                                                                                                                                                                                                         |                                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Rat                                                                                                         |
| <b>Specificity</b>                                                                                                                                                                                      | Detects rat CD19 in direct ELISAs.                                                                          |
| <b>Source</b>                                                                                                                                                                                           | Recombinant Monoclonal Mouse IgG <sub>2B</sub> Clone # 771404R                                              |
| <b>Purification</b>                                                                                                                                                                                     | Protein A or G purified from hybridoma culture supernatant                                                  |
| <b>Immunogen</b>                                                                                                                                                                                        | Chinese hamster ovary cell line CHO-derived recombinant rat CD19<br>Met1-Gly287<br>Accession # NP_001013255 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 594<br>Excitation Wavelength: 590 nm<br>Emission Wavelength: 617 nm                             |
| <b>Formulation</b>                                                                                                                                                                                      | 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.

**Immunohistochemistry** Optimal dilution of this antibody should be experimentally determined.

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | 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.

## PRODUCT SPECIFIC NOTICES

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