

DESCRIPTION

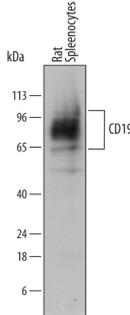
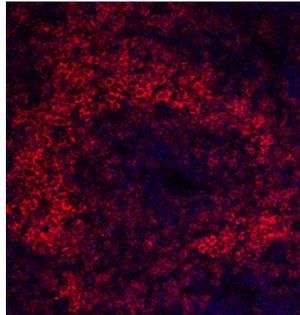
Species Reactivity	Rat
Specificity	Detects rat CD19 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human CD19 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 771404
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant rat CD19 Met1-Gly287 Accession # NP_001013255
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

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.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunohistochemistry	8-25 µg/mL	See Below

DATA

<p>Western Blot</p>  <p>Detection of Rat CD19 by Western Blot. Western blot shows lysates of rat splenocytes. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Rat CD19 Monoclonal Antibody (Catalog # MAB7489) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). Specific bands were detected for CD19 at approximately 60-110 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p>Immunohistochemistry</p>  <p>CD19 in Rat Spleen. CD19 was detected in perfusion fixed frozen sections of rat spleen using Mouse Anti-Rat CD19 Monoclonal Antibody (Catalog # MAB7489) at 25 µg/mL overnight at 4 °C. Tissue was stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to B-cells inside the germinal layers. View our protocol for Fluorescent IHC Staining of Frozen Tissue Sections.</p>
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PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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 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.