BAFF-R (also called BR3) is the most unique of the 3 tumor necrosis factor receptors (TNFRs) for BlyS (B-lymphocyte stimulator; also called BAFF). A/WySnJ mice (which have a mutant BAFF-R gene) have a low peripheral blood B-cell fraction that is similar to that seen in BLYS-deficient mice, suggesting that BAFF-R transmits critical B-cell survival signals associated with BlyS stimulation. Downstream mediators of BAFF-R activation include both the canonical (classic, NF-κB1) and alternative (noncanonical, NF-κB2) NF-κB pathways. Although BLYS/BAFF-R-derived intracellular signaling pathways are still incompletely defined, this ligand/receptor dyad provides key regulatory control of antiproliferative cell survival and growth stimulation. In this regard, BLYS modulates several antiproliferative Bcl-2 family members, including Bcl-xL, Mcl-1, A-1, Bcl-2, and Bim, via survival-promoting kinase systems such as Pim 1/2 or Erk as well as proteins involved in early cell-cycle progression, including c-myc, p27Kip1, cyclin D1, and cyclin D2. The binding of BAFF to the BAFF-R leads to the activation of the NF-κB pathway and ultimately to the transcription of the anti-apoptotic factor Bcl-2. The finding that Bcl-2 over-expression can, to a large extent, rescue the mature B cell compartment in BAFF signaling deficient mice, indicates that Bcl-2 expression induced by BAFF is crucial for the survival of B cells during the transition from immature to mature stages. Moreover, BAFF-BAFF-R signaling was also playing a central role in the in vivo maintenance of the peripheral mature B cell pool. Furthermore, BAFF-R was found to be presented in the cell nucleus as well as in the plasma membrane and cytoplasm, in both normal peripheral blood B lymphocytes and aggressive NHL-B cells. It demonstrated that in addition to activating the NF-κB pathways in the plasma membrane, BAFF-R can also promote normal and NHL-B-cell survival and proliferation by directly functioning as a transcriptional cofactor with other NF-κB transcription factor(s) and possibly regulating transcription of other NF-κB target genes.

References:

TECHNICAL INFORMATION

Source:
BAFF-R Antibody is a rabbit antibody raised against a short peptide from human BAFF-R sequence.

Specificity and Sensitivity:
This antibody detects endogenous BAFF-R proteins without cross-reactivity with other family members.

Storage Buffer: PBS and 30% glycerol

Storage:
Store at -20°C for at least one year. Store at 4°C for frequent use. Avoid repeated freeze-thaw cycles.

APPLICATIONS

<table>
<thead>
<tr>
<th>Application</th>
<th>Dilution</th>
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</thead>
<tbody>
<tr>
<td>WB</td>
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<tr>
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</tr>
<tr>
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<td>1:50-100</td>
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<tr>
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</tbody>
</table>

*Optimal dilutions must be determined by end user.

QUALITY CONTROL DATA

Western Blot detection of recombinant human BAFF-R cytoplasmic domain fragments using BAFF-R Antibody.