Description
The hTNFR-M1 antibody specifically recognizes the extracellular domain of the 75 kDa transmembrane receptor for the human cytokines, tumor necrosis factor (TNF or TNF-α) and lymphotoxin-alpha (LT-α3, aka, lymphotoxin or TNF-β). This receptor is referred to as the p75 or Type II Tumor Necrosis Factor Receptor (TNFRII) [aka, CD120b]. Human TNFRII proteins are expressed by hematopoietic cells including macrophages, neutrophils, lymphocytes, thymocytes and mast cells. TNFRII is expressed by a variety of other cell types including endothelial cells, cardiac myocytes and prostate cells. Naïve B cells express very low or undetectable levels of TNFRII whereas mature erythrocytes and platelets are uniformly negative for TNFRII expression. The immunogen used to generate the hTNFR-M1 hybridoma was COS-expressed recombinant human TNFRII.

Preparation and Storage
Store undiluted at 4°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
The antibody was conjugated with biotin under optimum conditions, and unreacted biotin was removed.

Application Notes

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<th>ELISA Detection</th>
<th>Flow cytometry</th>
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<td></td>
<td>Routinely Tested</td>
<td>Reported</td>
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Recommended Assay Procedure:
ELISA Detection: Biotin Rat Anti-Human CD120b (Cat. No. 552477) serves as the detection antibody in a sandwich ELISA for measuring human TNFRII protein levels. Biotin Rat Anti-Human CD120b (Cat. No. 552477) can be paired with purified MR2-2 anti-human TNFRII using the recombinant human soluble TNFRII as the standard. This detection antibody should be titrated between 0.5 -1 µg/ml to determine its optimal concentration for ELISA detection. To obtain linear standard curves, doubling dilutions of recombinant soluble human TNFRII ranging from 1000 to 10 pg/ml are recommended for inclusion in each ELISA plate. For specific methodology, please visit our website, http://www.bdbiosciences.com/us/s/resources, and go to the protocols section under "ELISA and ELISPOT".

Note: This ELISA antibody pair shows no cross-reactivity with the following recombinant human cytokines: CD14, CD40, CD40L, IL-1Ra, IL-1RII, IL-1α, IL-1β, IL-2, IL-3, IL-4, sIL-4R, IL-5, IL-6, IL-6R, IL-7, IL-8, IL-10, IL-12p40, IL-12p70, IL-13, IL-15, TNF, LT-α, sTNFRI, IFNγ, TRAIL, GM-CSF, TGFβ3, Trx. This ELISA antibody pair also shows no cross-reactivity with recombinant mouse sTNFRI, recombinant mouse TNFRII.

Immunofluorescent Staining and Flow Cytometric Analysis: The Purified Rat Anti-Human CD120b (Cat. No. 551311) antibody can be used for the immunofluorescent staining (≤ 1 µg antibody/10e6 cells) and flow cytometric analysis of human nucleated cells to measure their expressed levels of surface TNFRII. An appropriate immunoglobulin is Purified Rat IgG2b, κ Isotype Control (Cat. No. 555846). Other formats available for immunofluorescent staining include, PE Rat Anti-Human CD120b (Cat. No. 552418). Please note also that as a consequence of in vivo or in vitro activation, cell surface TNFRII can either be shed by cells or transiently expressed at higher levels. As a result, cellular activation can affect the cell's overall expressed level of surface TNFRII.
Suggested Companion Products

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<th>Catalog Number</th>
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<tr>
<td>551311</td>
<td>Purified Rat Anti-Human CD120b</td>
<td>0.5 mg</td>
<td>hTNFR-M1</td>
</tr>
<tr>
<td>555846</td>
<td>Purified Rat IgG2b, κ Isotype Control</td>
<td>0.1 mg</td>
<td>R35-38</td>
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<tr>
<td>552418</td>
<td>PE Rat Anti-Human CD120b</td>
<td>100 Tests</td>
<td>hTNFR-M1</td>
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Product Notices
1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.

References