Technical Data Sheet

Purified Hamster Anti-Mouse/Rat TNF

Product Information

Material Number: 557516
Size: 0.5 mg
Concentration: 0.5 mg/ml
Clone: TN3-19.12
Immunogen: Recombinant mouse TNF protein
Isotype: Armenian Hamster IgG1, λ
Reactivity: QC Testing: Rat, Mouse
Cross-reactivity to Rabbit
Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The TN3-19.12 antibody reacts with rat and mouse tumor-necrosis factor (TNF) proteins (also known as TNF-α). Moreover, the TN3-19.12 antibody is reported to crossreact with rabbit TNF, but it does not crossreact with mouse lymphotoxin-α (LT-α, also known as TNF-β) nor with human TNF. The immunogen used to generate the TN3-19.12 hybridoma was E. coli-expressed, purified recombinant mouse TNF protein. This monoclonal antibody has been reported to neutralize the bioactivities of mouse, rat and rabbit TNF.

This antibody is routinely tested by ELISA. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.

Preparation and Storage

Store undiluted at 4°C.
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

Application

<table>
<thead>
<tr>
<th>Application</th>
<th>ELISA Capture</th>
<th>Neutralization</th>
<th>Intracellular block/flow cytometry</th>
<th>Immunoprecipitation</th>
<th>Western blot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routinely Tested</td>
<td></td>
<td>Tested During Development</td>
<td>Tested During Development</td>
<td>Reported</td>
<td>Reported</td>
</tr>
</tbody>
</table>

Recommended Assay Procedure:

**ELISA:** The purified TN3-19.12 antibody (Cat. No. 557516) can be used as a capture antibody for a sandwich ELISA that measures TNF protein levels:

**MOUSE TNF ELISA:** The purified TN3-19.12 capture antibody (Cat. No. 557516) can be paired with the biotinylated Fab anti-Mouse/Rat TNF (Cat. No. 558415) as the detection antibody and with recombinant mouse TNF protein (Cat. No. 554589) as the cytokine standard in a sandwich ELISA for measuring mouse TNF protein levels.

**RAT TNF ELISA:** The purified TN3-19.12 capture antibody (Cat. No. 557516) can be paired with the biotinylated Fab anti-Mouse/Rat TNF (Cat. No. 558415) and with recombinant rat TNF protein (Cat. No. 555109) as the cytokine standard in a sandwich ELISA for measuring rat TNF protein levels.

The capture and detecting antibody preparations should be titrated from 0.5 - 2 µg/ml to determine their optimal concentrations for ELISA. To obtain linear standard curves, doubling dilutions of TNF protein ranging from ~2,000 to 5 pg/ml are recommended for inclusion in each ELISA plate. For specific methodology, please visit the protocols section or chapter on ELISA in the Immune Function Handbook, both of which are posted on our web site, www.bdbiosciences.com. These ELISA antibody pairs show no cross-reactivity with other tested cytokines including mouse IL-1α, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-9, IL-10, IL-12 p70, IL-15, GM-CSF, IFN-γ, MCP-1, TCA-3 and human: TNF.

Note: The BD OptEIA™ ELISA Kits and Sets are specially formulated for cytokine measurements in serum or plasma samples. For mouse TNF, the Mouse TNF OptEIA Set, Cat. No. 558534 and Mouse TNF OptEIA Kit, Cat. No. 559732 is recommended. For rat TNF, the Rat TNF OptEIA Set, Cat. No. 558535 and the Rat TNF OptEIA Kit 550734 are recommended.
OTHER APPLICATIONS

In vitro neutralization: The NA/LE™ format of the TN3-19.12 antibody (Cat. No. 557370) is useful for neutralization of mouse TNF bioactivity.

Blocking Control for Intracellular Staining: The purified TN3-19.12 antibody can be used as a blocking control to demonstrate specificity of TNF staining by conjugated TN3-19.12 antibodies.

IP/WB: The TN3-19.12 antibody has been reported to be useful for immunoprecipitation and Western blotting. Please note that these applications are not routinely tested at BD Biosciences.

Suggested Companion Products

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<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<tr>
<td>554589</td>
<td>Recombinant Mouse TNF</td>
<td>10 µg</td>
<td>(none)</td>
</tr>
<tr>
<td>555109</td>
<td>Recombinant Rat TNF</td>
<td>5 µg</td>
<td>(none)</td>
</tr>
<tr>
<td>557370</td>
<td>Purified NA/LE Hamster Anti-Mouse/Rat TNF</td>
<td>0.5 mg</td>
<td>TN3-19.12</td>
</tr>
</tbody>
</table>
| 558415         | Biotin Human anti-Mouse/Rat TNF | 0.5 mg | 516D1A1       

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
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. Although hamster immunoglobulin isotypes have not been well defined, BD Biosciences Pharmingen has grouped Armenian and Syrian hamster IgG monoclonal antibodies according to their reactivity with a panel of mouse anti-hamster IgG mAbs. A table of the hamster IgG groups, Reactivity of Mouse Anti-Hamster Ig mAbs, may be viewed at http://www.bdbiosciences.com/documents/hamster_chart_11x17.pdf.
5. Sodium azide is a reversible inhibitor of oxidative metabolism; therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also affect the results of functional studies, we recommend the NA/LE (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.

References