Technical Data Sheet

Purified NA/LE Mouse Anti-Human TNF

Product Information

Material Number: 552467
Size: 0.5 mg
Concentration: 1.0 mg/ml
Clone: MABTNF-A5
Immunogen: Recombinant human TNF protein
Isotype: Mouse IgG2a, \( \kappa \)
Reactivity: QC Testing: Human
Storage Buffer: No azide/low endotoxin: Aqueous buffered solution containing no preservative, 0.2µm sterile filtered. Endotoxin level is \( \leq 0.01 \) EU/µg (\( \leq 0.001 \) ng/µg) of protein as determined by the LAL assay.

Description

The MABTNF-A5 antibody, formerly known as 5N, reacts with human tumor necrosis factor, TNF (aka, TNF-\( \alpha \) and TNFSF2). TNF is a multifunctional cytokine involved in a variety of immune and inflammatory responses including hemorrhagic necrosis of tumors, septic shock, fever and autoimmune diseases. TNF can regulate the growth and differentiation of many different cell types. It is produced by different activated cell types including macrophages, T lymphocytes, NK cells, dendritic cells, endothelial cells, peripheral blood leukocytes, osteoblasts, astrocytes, mast cells, Kupffer cells, smooth muscle cells, fibroblasts and certain tumor cells. TNF exists in two biologically active forms, i.e., transmembrane and soluble forms. Upon activation, cells express transmembrane TNF glycoproteins that associate as homotrimeric complexes. After enzymatic cleavage, the extracellular region of membrane TNF sheds as a soluble homotrimer. The biologically active form of TNF has been reported to be a trimer. The immunogen used to generate the MABTNF-A5 hybridoma was purified recombinant human TNF. This is an extraordinarily potent neutralizing antibody that is reportedly also useful for ELISA measurements of human TNF.

Preparation and Storage

Store undiluted at 4°C.
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
This preparation contains no preservatives, thus it should be handled under aseptic conditions.

Application Notes

Application

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<tr>
<th>Application</th>
<th>ELISA</th>
<th>Routinely Tested</th>
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<tbody>
<tr>
<td>Neutralization</td>
<td>Tested During Development</td>
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Neutralization Activity:

This antibody has been reported to be useful for the neutralization of recombinant human TNF. Neutralization activity may be measured using a cytolysis assay for MTT dye conversion with 2.0 ng/mL recombinant human TNF (Cat. No. 554618) and L929 at 2 x 10^5 cells/mL as indicator cells (i.e. preincubation of the antibody with recombinant human TNF for 60 minutes).

50% Neutralization (ND50) at 1 -100 ng/mL
>90% Neutralization at 50-300 ng/mL

Suggested Companion Products

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<tr>
<td>554645</td>
<td>Purified NA/LE Mouse IgG2a, ( \kappa ) Isotype Control</td>
<td>0.5 mg</td>
<td>G155-178</td>
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<tr>
<td>554618</td>
<td>Recombinant Human TNF</td>
<td>10 µg</td>
<td>(none)</td>
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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. 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.
3. Please refer to www.regdocs.bd.com to access safety data sheets (SDS).
References