TNF-α Antibody

Store at -20°C

#3707

For Research Use Only. Not For Use In Diagnostic Procedures.

**Product Usage Information**

<table>
<thead>
<tr>
<th>Application</th>
<th>Dilution</th>
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<tbody>
<tr>
<td>Western Blotting</td>
<td>1:1000</td>
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<tr>
<td>Immunoprecipitation</td>
<td>1:25</td>
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</tbody>
</table>

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

**Specificity / Sensitivity**

TNF-α Antibody detects endogenous levels of mature TNF-α as well TNF-α precursor protein.

**Species Reactivity:**

Human, Mouse

**Species predicted to react based on 100% sequence homology:**

Monkey, Pig

**Source / Purification**

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly198 of human TNF-α protein. Antibodies are purified by protein A and peptide affinity chromatography.

**Background**

TNF-α, the prototypical member of the TNF protein superfamily, is a homotrimeric type-II membrane protein (1,2). Membrane-bound TNF-α is cleaved by the metalloprotease TACE/ADAM17 to generate a soluble homotrimer (2). Both membrane and soluble forms of TNF-α are biologically active. TNF-α is produced by a variety of immune cells including T cells, B cells, NK cells, and macrophages (1). Cellular response to TNF-α is mediated through interaction with receptors TNF-R1 and TNF-R2 and results in activation of pathways that favor both cell survival and apoptosis depending on the cell type and biological context. Activation of kinase pathways (including JNK, Erk1/2, p38 MAPK, and NF-kB) promotes the survival of cells, while TNF-α-mediated activation of caspase-8 leads to programmed cell death (1,2). TNF-α plays a key regulatory role in inflammation and host defense against bacterial infection, notably Mycobacterium tuberculosis (3).