

## Product datasheet

# Anti-TNF alpha antibody [2.1\_4E10-1H11] ab9348

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### Overview

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<b>Product name</b>	Anti-TNF alpha antibody [2.1_4E10-1H11]
<b>Description</b>	Mouse monoclonal [2.1_4E10-1H11] to TNF alpha
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> Sandwich ELISA, Flow Cyt, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human, Recombinant fragment
<b>Immunogen</b>	Recombinant full length protein corresponding to Human TNF alpha. Recombinant Human TNF-a
<b>Positive control</b>	WB: Recombinant human TNF alpha protein ( <a href="#">ab9642</a> ). Flow Cyt: THP1 cells.
<b>General notes</b>	<p>This product is no longer batch tested in IHC, for an IHC validated antibody please see <a href="#">ab1793</a>.</p> <p>Monoclonal antibodies were produced in BALB/c x C57BL/6 F1 mice</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### Properties

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<b>Form</b>	Lyophilized:Reconstitute with 500µl of sterile water.
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term.
<b>Purity</b>	Protein G purified
<b>Purification notes</b>	This antibody was purified from cell culture by Protein G affinity chromatography.
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	2.1_4E10-1H11
<b>Isotype</b>	IgG1
<b>Light chain type</b>	kappa

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab9348 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
<b>Sandwich ELISA</b>		Use a concentration of 2 - 4 µg/ml. In a sandwich ELISA (assuming 100µl/well), a concentration of 2.0-4.0 µg/ml of this antibody will detect at least 1000 pg/ml of recombinant Human TNF-α when used with an appropriate biotinylated antigen affinity purified anti-Human TNF-α as the detection antibody at a concentration of approximately 0.5-1.0 µg/ml.
<b>Flow Cyt</b>		Use at an assay dependent concentration. <b>ab170190</b> - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
<b>IHC-P</b>		Use at an assay dependent concentration.

## Target

### Function

Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin-1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell proliferation and induce cell differentiation.

### Involvement in disease

Genetic variations in TNF are a cause of susceptibility psoriatic arthritis (PSORAS) [MIM:607507]. PSORAS is an inflammatory, seronegative arthritis associated with psoriasis. It is a heterogeneous disorder ranging from a mild, non-destructive disease to a severe, progressive, erosive arthropathy. Five types of psoriatic arthritis have been defined: asymmetrical oligoarthritis characterized by primary involvement of the small joints of the fingers or toes; asymmetrical arthritis which involves the joints of the extremities; symmetrical polyarthritis characterized by a rheumatoidlike pattern that can involve hands, wrists, ankles, and feet; arthritis mutilans, which is a rare but deforming and destructive condition; arthritis of the sacroiliac joints and spine (psoriatic spondylitis).

### Sequence similarities

Belongs to the tumor necrosis factor family.

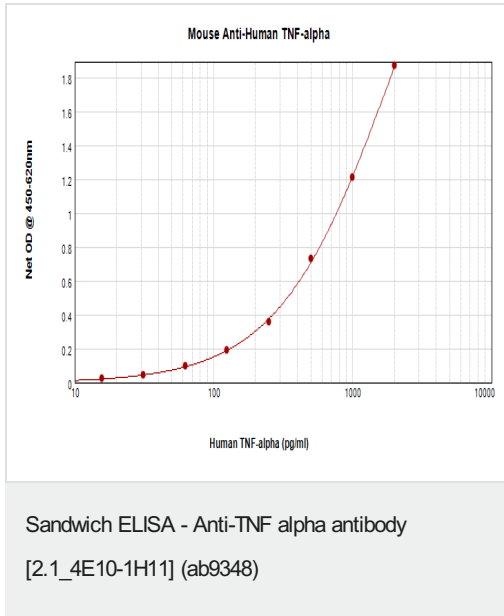
### Post-translational modifications

The soluble form derives from the membrane form by proteolytic processing.  
The membrane form, but not the soluble form, is phosphorylated on serine residues.  
Dephosphorylation of the membrane form occurs by binding to soluble TNFRSF1A/TNFR1.  
O-glycosylated; glycans contain galactose, N-acetylgalactosamine and N-acetylneuraminic acid.

### Cellular localization

Secreted and Cell membrane.

## Images



In a sandwich ELISA (assuming 100µl/well), a concentration of 2.0-4.0 µg/ml of this antibody will detect at least 1000 pg/ml of Recombinant Human TNF-α when used with suitable detection antibody at a concentration of at least 0.5-1.0 µg/ml.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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