


## Product datasheet

# Anti-TNF alpha antibody ab66579

★★★★★ 9 Abreviews 66 References 2 Images

### Overview

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<b>Product name</b>	Anti-TNF alpha antibody
<b>Description</b>	Rabbit polyclonal to TNF alpha
<b>Host species</b>	Rabbit
<b>Specificity</b>	Ab66579 has been batch tested in Western Blot using LPS stimulated lysates. Abcam does not recommend this product for use in IHC. Please contact Abcam Scientific Support for more information.
<b>Tested applications</b>	<b>Suitable for:</b> WB, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human <b>Predicted to work with:</b> Cat, Chimpanzee, Baboon 
<b>Immunogen</b>	Synthetic peptide corresponding to Human TNF alpha aa 1-100 conjugated to keyhole limpet haemocyanin. (Peptide available as <a href="#">ab66578</a> )
<b>Positive control</b>	This antibody gave a positive signal in the following LPS stimulated lysates: THP1, Raw264.7 IF/ICC: PMA/Befreldin/LPS treated RAW246.7 cell line.
<b>General notes</b>	<p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications &amp; species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.</p> <p>In preparation for this, we have started to update the applications &amp; species that this product is Abpromise guaranteed for.</p> <p>We are also updating the applications &amp; species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.</p> <p>Applications &amp; species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.</p> <p>Please check that this product meets your needs before purchasing. 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, as well as</p>

customer reviews and Q&As.

## Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS  Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

Our [Abpromise guarantee](#) covers the use of **ab66579** 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
WB	★★★★☆	Use a concentration of 1 µg/ml. Detects a band of approximately 26 kDa (predicted molecular weight: 25 kDa). Abcam recommends using 3% Milk as the blocking agent.
ICC/IF	★★★★★	Use a concentration of 1 µg/ml.

## Target

<b>Function</b>	Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFB. 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.
<b>Involvement in disease</b>	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.

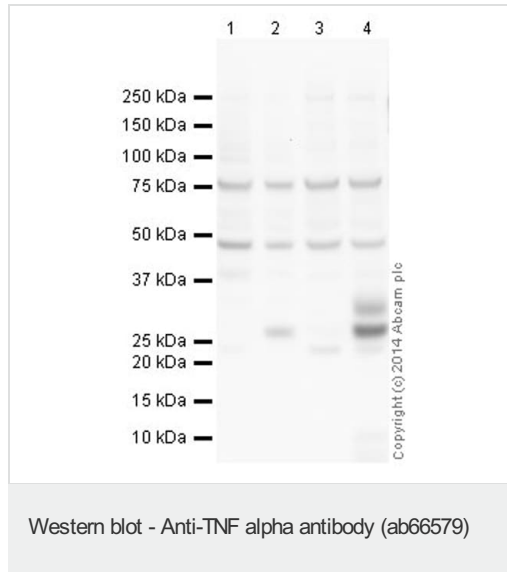
Dephosphorylation of the membrane form occurs by binding to soluble TNFRSF1A/TNFR1.

O-glycosylated; glycans contain galactose, N-acetylgalactosamine and N-acetylneuraminic acid.

### Cellular localization

Secreted and Cell membrane.

## Images



**All lanes :** Anti-TNF alpha antibody (ab66579) at 1 µg/ml

**Lane 1 :** THP1 cells treated with PMA (negative control)

**Lane 2 :** THP1 cells treated with PMA+LPS+Brefeldin A

**Lane 3 :** Raw264.7 cells treated with PMA (negative control)

**Lane 4 :** Raw264.7 cells treated with PMA+LPS+Brefeldin A

Lysates/proteins at 20 µg per lane.

### Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/10000 dilution

Performed under reducing conditions.

**Predicted band size:** 25 kDa

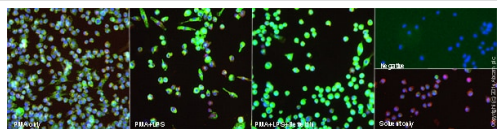
**Observed band size:** 26 kDa

[why is the actual band size different from the predicted?](#)

**Additional bands at:** 28 kDa (possible glycosylated form), 50 kDa, 75 kDa. We are unsure as to the identity of these extra bands.

**Exposure time:** 2 minutes

Mature THP-1 and Raw264.7 cells were treated with LPS (1 µg/ml) for 6 hours to stimulate production of TNF alpha. Brefeldin A (300 ng/ml) was added in the final 3 hours of incubation to inhibit golgi traffic.



Immunocytochemistry/ Immunofluorescence - Anti-TNF alpha antibody (ab66579)

ab66579 stained RAW246.7 cells. The cells were treated with PMA for 24 hours, LPS for 6 hours and Befrelidin for the final 3 hours. The cells were then 4% formaldehyde fixed for 10 minutes at room temperature and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1hour at room temperature to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab66579 at 1µg/ml) overnight at +4°C. The secondary antibody (pseudo-colored green) was Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed (ab150081) used at a 1/1000 dilution for 1hour at room temperature. Alexa Fluor® 594 WGA was used to label plasma membranes (pseudo-colored red) at a 1/200 dilution for 1hour at room temperature. DAPI was used to stain the cell nuclei (pseudo-colored blue) at a concentration of 1.43µM for 1hour at room temperature.

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

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