abcam

## Product datasheet

# Anti-TNF alpha antibody [52B83] ab1793

14 Abreviews 147 References 4 Images

### Overview

| | |
|---|---|
| **Product name** | Anti-TNF alpha antibody [52B83] |
| **Description** | Mouse monoclonal [52B83] to TNF alpha |
| **Host species** | Mouse |
| **Specificity** | This antibody detects both natural and recombinant TNFa. It does not cross-react with TNF beta or lymphotoxin. It reacts with free soluble (17 kDa) and membrane (26 kDa) human TNF-alpha. It does not react with receptor-bound TNF-alpha. Non-specific background staining is observed in connective tissues. |
| **Tested applications** | **Suitable for:** Flow Cyt, ICC/IF |
| **Species reactivity** | **Reacts with:** Mouse |
| **Immunogen** | Full length native protein (purified) (Human). |
| **Positive control** | Purchase matching WB positive control: **Recombinant Human TNF alpha protein** › |
| **General notes** | 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.<br>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&As |

### Properties

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| **Form** | Liquid |
| **Storage instructions** | Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles. |
| **Storage buffer** | Preservative: 0.02% Sodium azide<br>Constituents: 0.1% BSA, PBS |
| **Purity** | Protein G purified |
| **Clonality** | Monoclonal |
| **Clone number** | 52B83 |

| | |
|---|---|
| **Myeloma** | unknown |
| **Isotype** | IgG1 |
| **Light chain type** | unknown |

## Applications

**The Abpromise guarantee** Our Abpromise guarantee covers the use of ab1793 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 |
|---|---|---|
| **Flow Cyt** | | 1/10.<br>(methanol fixed cells)<br>ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody. |
| **ICC/IF** | ★★★★★ (2) | Use at an assay dependent concentration. |

## Target

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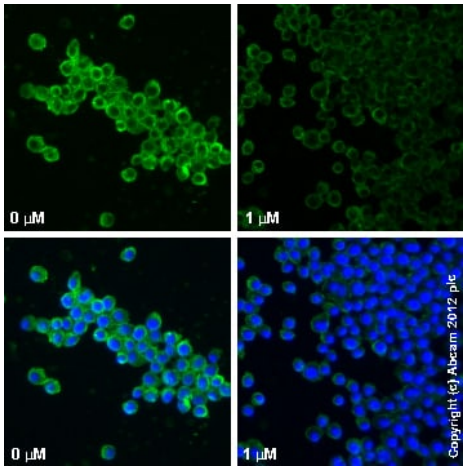
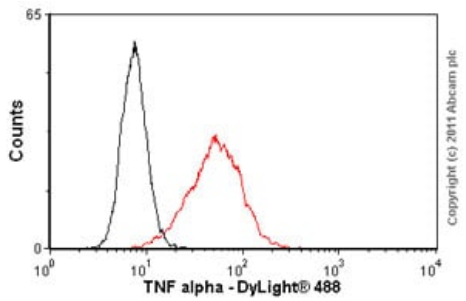
|---|---|
| **Function** | Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFBR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin-1 secretion and is implicated in the induction 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.<br>The membrane form, but not the soluble form, is phosphorylated on serine residues.<br>Dephosphorylation of the membrane form occurs by binding to soluble TNFRSF1A/TNFR1.<br>O-glycosylated; glycans contain galactose, N-acetylgalactosamine and N-acetylneuraminic acid. |
| **Cellular localization** | Secreted and Cell membrane. |

## Images




Immunocytochemistry/ Immunofluorescence - Anti-TNF alpha antibody [52B83] (ab1793)

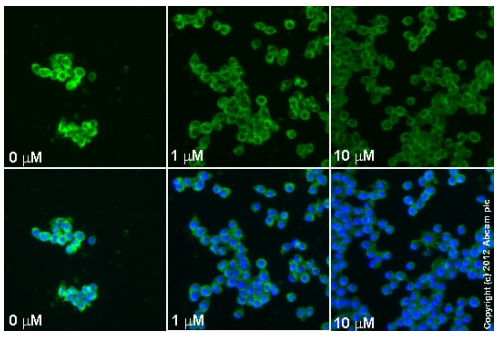
ab1793 staining TNFα in RAW 264.7 cells treated with (R,S)-rolipram (ab120029), by ICC/IF. Decrease in TNFα expression correlates with increased concentration of (R,S)-rolipram, as described in literature.
The cells were incubated at 37°C for 24h in media containing different concentrations of ab120029 ((R,S)-rolipram) in DMSO, fixed with 100% methanol for 5 minutes at -20°C and blocked with PBS containing 10% goat serum, 0.3 M glycine, 1% BSA and 0.1% tween for 2h at room temperature. Staining of the treated cells with ab1793 (5 µg/ml) was performed overnight at 4°C in PBS containing 1% BSA and 0.1% tween. A DyLight 488 goat anti-mouse polyclonal antibody (ab96879) at 1/250 dilution was used as the secondary antibody. Nuclei were counterstained with DAPI and are shown in blue.




Flow Cytometry - Anti-TNF alpha antibody [52B83] (ab1793)

Overlay histogram showing RAW 264.7 cells stained with ab1793 (red line). The cells were fixed with methanol (5 min) and incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab1793, 1/10 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2µg/1x$10^6$ cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a decreased signal in RAW 264.7 cells fixed with 4% paraformaldehyde (10 min) used under the same conditions.

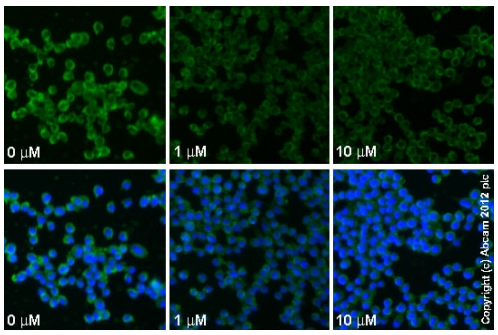
Please note that Abcam do not have data for use of this antibody on non-fixed cells. We welcome any customer feedback.




Immunocytochemistry/ Immunofluorescence - Anti-TNF alpha antibody [52B83] (ab1793)

ab1793 staining TNFα in RAW 264.7 cells treated with (R)-(-)-rolipram (ab120031), by ICC/IF. Decrease in TNFα expression correlates with increased concentration of (R)-(-)-rolipram , as described in literature.
The cells were incubated at 37°C for 24h in media containing different concentrations of ab120031 ((R)-(-)--rolipram) in DMSO, fixed with 100% methanol for 5 minutes at -20°C and blocked with PBS containing 10% goat serum, 0.3 M glycine, 1% BSA and 0.1% tween for 2h at room temperature. Staining of the treated cells with ab1793 (5 µg/ml) was performed overnight at 4°C in PBS containing 1% BSA and 0.1% tween. A DyLight 488 goat anti-

mouse polyclonal antibody (ab96879) at 1/250 dilution was used as the secondary antibody. Nuclei were counterstained with DAPI and are shown in blue.




Immunocytochemistry/ Immunofluorescence - Anti-TNF alpha antibody [52B83] (ab1793)

ab1793 staining TNFα in RAW 264.7 cells treated with (S)-(+)-rolipram (ab120030), by ICC/IF. Decrease in TNFα expression correlates with increased concentration of (S)-(+)-rolipram , as described in literature.
The cells were incubated at 37°C for 24h in media containing different concentrations of ab120030 ((S)-(+)-rolipram) in DMSO, fixed with 100% methanol for 5 minutes at -20°C and blocked with PBS containing 10% goat serum, 0.3 M glycine, 1% BSA and 0.1% tween for 2h at room temperature. Staining of the treated cells with ab1793(5 µg/ml) was performed overnight at 4°C in PBS containing 1% BSA and 0.1% tween. A DyLight 488 goat anti-mouse polyclonal antibody (ab96879) at 1/250 dilution was used as the secondary antibody. Nuclei were counterstained with DAPI and are shown in blue.



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