abcam

Product datasheet

Alexa Fluor® 647 Anti-TNF alpha antibody [EPR20972] ab237354

Recombinant RabMAb

3 Images

Overview

Product name	Alexa Fluor® 647 Anti-TNF alpha antibody [EPR20972]
Description	Alexa Fluor® 647 Rabbit monoclonal [EPR20972] to TNF alpha
Host species	Rabbit
Conjugation	Alexa Fluor® 647. Ex: 652nm, Em: 668nm
Tested applications	**Suitable for:** Flow Cyt (Intra), ICC/IF
Species reactivity	**Reacts with:** Mouse
Immunogen	Recombinant fragment within Mouse TNF alpha aa 1 to the C-terminus. The exact immunogen sequence used to generate this antibody is proprietary information. If additional detail on the immunogen is needed to determine the suitability of the antibody for your needs, please **contact** our Scientific Support team to discuss your requirements. Database link: **P06804** **Run BLAST with** **Run BLAST with**
Positive control	ICC/IF: LPS (100 ng/ml, 7hours) and BFA (1ug/ml, 3hours) treated RAW264.7 cells. Flow Cyt (intra): LPS stimulated RAW264.7 cells.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**. Alexa Fluor® is a registered trademark of Molecular Probes, Inc, a Thermo Fisher Scientific Company. The Alexa Fluor® dye included in this product is provided under an intellectual property license from Life Technologies Corporation. As this product contains the Alexa Fluor® dye, the purchase of this product conveys to the buyer the non-transferable right to use the purchased product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). As this product contains the Alexa Fluor® dye the sale of this product is expressly conditioned on the buyer not using the product or its components, or any materials made using the product or its components, in any activity to generate revenue, which

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Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle. Stable for 12 months at -20°C. Store In the Dark.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: 30% Glycerol (glycerin, glycerine), 1% BSA, PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR20972
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab237354 in the following tested applications.

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

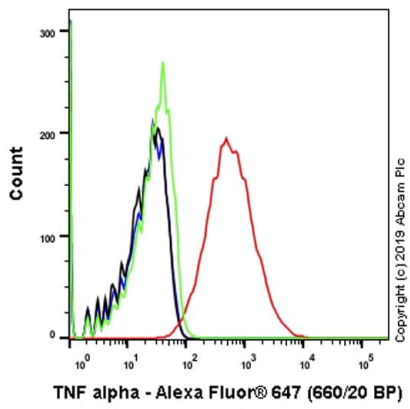
Application	Abreviews	Notes
Flow Cyt (Intra)		1/500.
ICC/IF		1/100. This product gave a positive signal in LPS (100 ng/ml, 7hours) and BFA (1ug/ml, 3hours) treated Raw264.7 fixed with 4% formaldehyde (10 min).

Target

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. 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

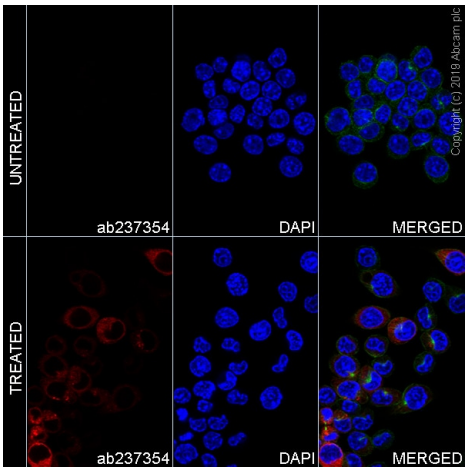


Flow Cytometry (Intracellular) - Alexa Fluor® 647 Anti-TNF alpha antibody [EPR20972] (ab237354)

Overlay histogram showing RAW264.7 cells treated (red line) or untreated (green line) with 100 ng/mL of lipopolysaccharides (LPS) for 7 hours with addition of 1 µg/mL brefeldin A (BFA) for the last 3 hours and subsequent staining with ab237354. The cells were fixed with 4% formaldehyde and then permeabilized with 90% methanol. The cells were then incubated in 1x PBS containing 10% normal serum to block non-specific protein-protein interactions followed by the antibody (ab237354) (1x10^6 in 100µl at 1/500 dilution (1 µg/ml)) for 30 min at 22°C.

Isotype control antibody (black line) was Rabbit IgG (monoclonal) Alexa Fluor® 647 (**ab199093**) used at the same concentration and conditions. Unlabeled sample (blue line) was also used as a control.

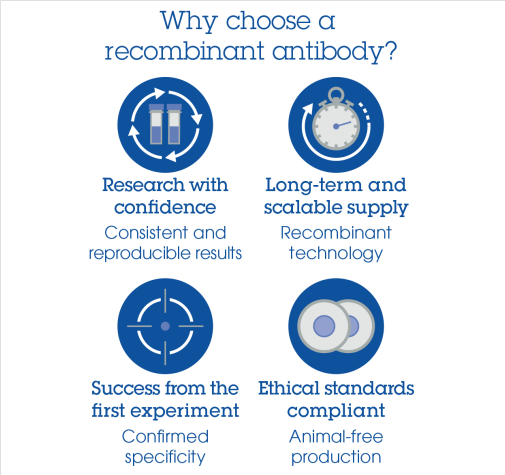
Acquisition of >5,000 events were collected using a 17 mW Red laser (633 nm) and 660/20 bandpass filter.



Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 647 Anti-TNF alpha antibody [EPR20972] (ab237354)

ab237354 staining TNF alpha in RAW 264.7+/-100 ng/ml lipopolysaccharides (LPS) for 7 hours with addition of 1 µg/ml brefeldin A (BFA) for the last 3 hours. The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab237354 at 1/100 dilution (shown in red) and **ab195887**, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 488), at 1/250 dilution (shown in green). Nuclear DNA was labeled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



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