abcam

ab272401

Anti-IL36 alpha/IL-1F6 antibody [EPR23152-241] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR23152-241
Purification technique	Affinity purification Protein A
Concentration	0.992 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Not recommended

Species	Mouse, Human, Rat
Dilution info	-

Notes	-

WB

Tested

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Rat, Human
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Mouse
Dilution info	-
Notes	-

Expected

Species	Human, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-Fr

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	-
Notes	-

Expected

Species	Human, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information IL36A

Function

Cytokine that binds to and signals through the IL1RL2/IL-36R receptor which in turn activates NF-kappa-B and MAPK signaling pathways in target cells linked to a pro-inflammatory response. Part of the IL-36 signaling system that is thought to be present in epithelial barriers and to take part in local inflammatory response; similar to the IL-1 system with which it shares the coreceptor IL1RAP. Seems to be involved in skin inflammatory response by acting on keratinocytes, dendritic cells and indirectly on T-cells to drive tissue infiltration, cell maturation and cell proliferation. In cultured keratinocytes induces the expression of macrophage, T-cell, and neutrophil chemokines, such as CCL3, CCL4, CCL5, CCL2, CCL17, CCL22, CL20, CCL5, CCL2, CCL17, CCL22, CXCL8, CCL20 and CXCL1, and the production of pro-inflammatory cytokines such as TNF, IL-8 and IL-6. In cultured monocytes up-regulates expression of IL-1A, IL-1B and IL-6. In myeloid dendritic cells involved in cell maturation by up-regulating surface expression of CD83, CD86 and HLA-DR. In monocyte-derived dendritic cells facilitates dendritic cell maturation and drives T-cell proliferation. May play a role in pro-inflammatory effects in the lung.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab272401 is the carrier-free version of ab269274.

Patented technology

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?

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 batch production

For more information, read more on recombinant antibodies.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility

This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	IL-36 alpha also known as IL-1F6 is a member of the IL-1 cytokine family and has a molecular mass of approximately 18 kDa. It is mostly expressed in epithelial tissues like the skin and lungs where it plays a role in the immune response. This

	protein acts as a pro-inflammatory mediator by binding to the IL-36 receptor stimulating the production of various cytokines and promoting inflammation.
Biological function summary	IL-36 alpha is involved in the activation of immune cells including macrophages and keratinocytes which further boosts the inflammatory response. It is not part of a larger complex but interacts with specific receptors on cell surfaces to exert its functions. This cytokine is known to enhance the expression of other inflammatory mediators which can amplify immune responses in the local tissue environment.
Pathways	IL-36 alpha takes part in the IL-1 signaling pathway and the NF-kB signaling pathway which are important for the regulation of immune and inflammatory responses. Through these pathways IL-36 alpha interacts with other proteins including IL-36 receptor antagonists and IL-37 to manage inflammation and regulate immune cell behavior. These pathways help in coordinating defense mechanisms under inflammatory conditions.
Associated diseases and disorders	IL-36 alpha has been linked to psoriasis and inflammatory bowel disease conditions that arise due to dysregulated immune responses. IL-36 alpha interacts with other proteins like IL-17 and TNF-alpha which are also involved in the pathophysiology of these diseases. Understanding its role in these processes may offer insights into potential therapeutic targets for treating such inflammatory disorders.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

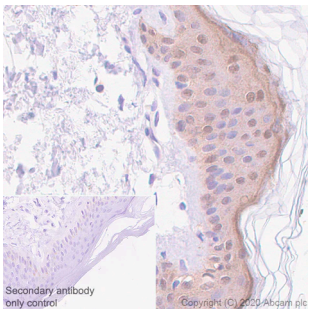
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

6 product images



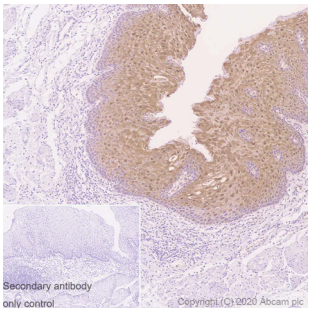
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IL36 alpha/IL-1F6 antibody [EPR23152-241] - BSA and Azide free (ab272401)

IL36 alpha/IL-1F6 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-IL36 alpha/IL-1F6 antibody

Immunohistochemical analysis of paraffin-embedded Human skin tissue labeling IL36 alpha/IL-1F6 with ab269274 at 1/500 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Positive staining on human skin. The section was incubated with ab269274 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.
Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab269274).



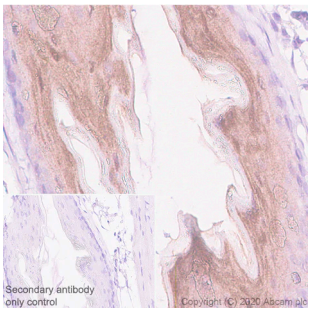
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IL36 alpha/IL-1F6 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-IL36 alpha/IL-1F6 antibody

Immunohistochemical analysis of paraffin-embedded Human esophagus tissue labeling IL36 alpha/IL-1F6 with ab269274 at 500 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Positive staining on human esophagus. The section was incubated with ab269274 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.
Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

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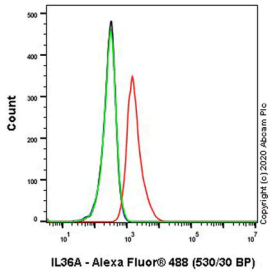
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IL36 alpha/IL-1F6 antibody [EPR23152-241] - BSA and Azide free (ab272401)

IL36 alpha/IL-1F6 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-IL36 alpha/IL-1F6 antibody

Immunohistochemical analysis of paraffin-embedded Mouse esophagus tissue labeling IL36 alpha/IL-1F6 with ab269274 at 1/500 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Positive staining on mouse esophagus (PMID: 20101239). The section was incubated with ab269274 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.
Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins

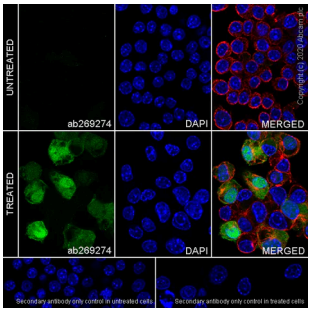
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Flow Cytometry (Intracellular) - Anti-IL36 alpha/IL-1F6 antibody [EPR23152-241] - BSA and Azide free (ab272401)

IL36 alpha/IL-1F6 Flow Cytometry (Intracellular) staining using rabbit Anti-IL36 alpha/IL-1F6 antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized RAW 264.7 (Mouse Abelson murine leukemia virus-induced tumor macrophage) treated with 1ug/ml lipopolysaccharide (LPS) for 24h (Red)/ Untreated control (Green) cells labelling IL36 alpha/IL-1F6 with ab269274 at 1/600 dilution (0.1ug) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab269274).

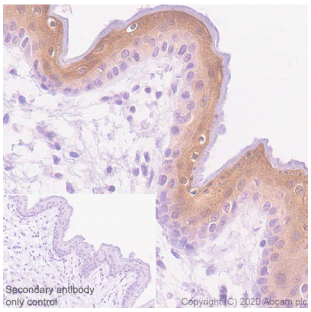


Immunocytochemistry/ Immunofluorescence - Anti-IL36 alpha/IL-1F6 antibody [EPR23152-241] - BSA and Azide free (ab272401)

IL36 alpha/IL-1F6 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-IL36 alpha/IL-1F6 antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized RAW264.7+LPS(1ug/ml, 24h)(-/+) cells labelling IL36 alpha/IL-1F6 with ab269274 at 1/50 dilution, followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) secondary antibody at 1/1000 dilution (Green). Confocal image showing weak cytoplasmic and strong nuclear staining in RAW 264.7 cells treated with lipopolysaccharide (LPS, 1 ug/ml) for 24 hours. ab195889 Anti-alpha Tubulin antibody (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Red). The Nuclear counterstain was DAPI (Blue).
Secondary antibody only control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab269274).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IL36 alpha/IL-1F6 antibody [EPR23152-241] - BSA and Azide free (ab272401)

IL36 alpha/IL-1F6 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-IL36 alpha/IL-1F6 antibody

Immunohistochemical analysis of paraffin-embedded Rat esophagus tissue labeling IL36 alpha/IL-1F6 with ab269274 at 500 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Positive staining on rat esophagus. The section was incubated with ab269274 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.
Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab269274).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.