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IL-36A Antibody
Catalog # ASC11710

Specification

IL-36A Antibody - Product Information

Application	**WB, IHC-P, IF, E**
Primary Accession	Q9UHA7
Other Accession	NP_055255, 7657092
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**Predicted: 17 kDa** **Observed: 16 kDa KDa**
Application Notes	**IL-36A antibody can be used for detection of IL-36A by Western blot at 1 - 2 µg/ml.**

IL-36A Antibody - Additional Information

Gene ID	**27179**

Target/Specificity
IL36A; IL-36A antibody is human specific. IL-36A antibody will not cross-react with IL-36B or IL-36G.

Reconstitution & Storage
IL-36A antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.

Precautions
IL-36A Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

IL-36A Antibody - Protein Information

Name IL36A (HGNC:15562)

Synonyms FIL1E, IL1E, IL1F6

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-alpha, 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.

Cellular Location
Cytoplasm. Secreted. Note=The secretion is dependent on protein unfolding and facilitated by the cargo receptor TMED10; it results in protein translocation from the cytoplasm into the ERGIC (endoplasmic reticulum-Golgi intermediate compartment) followed by vesicle entry and secretion.

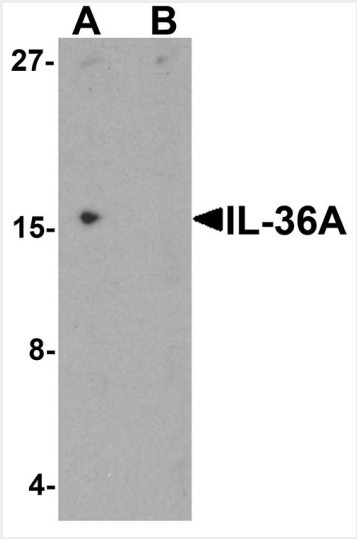
Tissue Location
Expressed in immune system and fetal brain, but not in other tissues tested or in multiple hematopoietic cell lines Predominantly expressed in skin keratinocytes but not in fibroblasts, endothelial cells or melanocytes. Increased in lesional psoriasis skin

IL-36A Antibody - Protocols

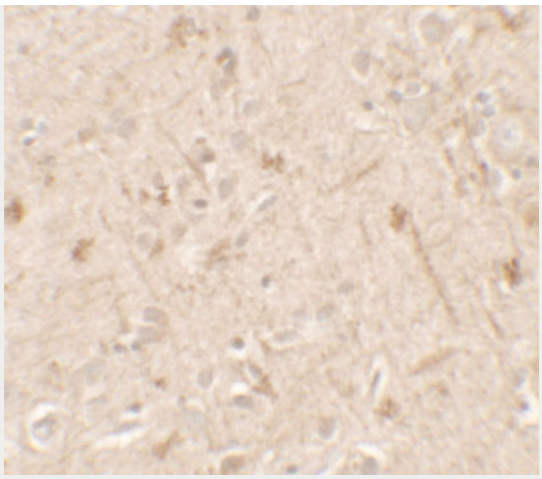
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

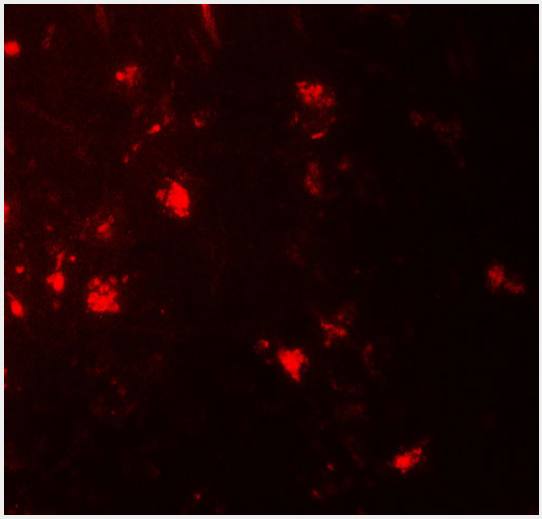
IL-36A Antibody - Images



Western blot analysis of IL-36A in MCF7 cell lysate with IL-36A antibody at 1 µg/ml in (A) the absence and (B) the presence of blocking peptide.



Immunohistochemistry of IL-36A in human brain tissue with IL-36A antibody at 5 µg/mL.



Immunofluorescence of IL-36A in human brain tissue with IL-36A antibody at 20 µg/mL.

IL-36A Antibody - Background

IL-36A is is a member of the interleukin 1 cytokine family whose gene and eight other interleukin 1 family genes form a cytokine gene cluster on chromosome 2 (1). IL-36A is thought to activate the NF-kappaB pathway through IL-1 receptor family members IL-1RL2 and IL-1RAcP (2). Like the related proteins IL-36B and IL-36G, IL-36A requires post-translational processing for full agonist activity, but the cleavage mechanism is currently unknown (3). The IL-36 cytokines have been suggested to amplify Th1 responses by enhancing proliferation and Th1 polarization of naive CD4+ T cells (4).

IL-36A Antibody - References

Smith DE, Renshaw BR, Ketchem RR, et al. Four new members expand the interleukin-1 superfamily. J. Biol. Chem. 2000; 275:1169-75.
Towne JE, Garka KE, Renshaw BR, et al. Interleukin (IL)-1F6, IL-1F8, and IL-1F9 signal through IL-1Rrp2 and IL-1RAcP to activate the pathway leading to NF-kappaB and MAPKs. J. Biol. Chem. 2004; 279:13677-88.
Towne JE, Renshaw BR, Douangpanya J, et al. Interleukin-36 (IL-36) ligands require processing for full agonist agonist (IL-36a, IL-36b, and IL-36g) or antagonist (IL-36Ra) activity. J. Biol. Chem. 2011; 286:42594-602.
Vigne S, Palmer G, Martin P, et al. IL-36 signaling amplifies Th1 responses by enhancing

proliferation and Th1 polarization of naive CD4+ T cells. Blood 2012; 120:3478-87.