

IL-36RN Antibody

Catalog # ASC11713

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q9UBH0
Other Accession	NP_775262 , 27894310
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	16962
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	IL-36RN antibody can be used for detection of IL-36RN by Western blot at 1 - 2 µg/ml.

Additional Information

Gene ID	26525
Other Names	Interleukin-36 receptor antagonist protein, IL-36Ra, FIL1 delta, IL-1-related protein 3, IL-1RP3, Interleukin-1 HY1, IL-1HY1, Interleukin-1 delta, IL-1 delta, Interleukin-1 family member 5, IL-1F5, Interleukin-1 receptor antagonist homolog 1, IL-1ra homolog 1, Interleukin-1-like protein 1, IL-1L1, IL36RN, FIL1D, IL1F5, IL1HY1, IL1L1, IL1RP3
Target/Specificity	IL36RN; IL-36RN antibody is human specific. At least two isoforms of IL-36RN are known to exist
Reconstitution & Storage	IL-36RN antibody can be stored at 4°C for three months and -20°C, stable for up to one year.
Precautions	IL-36RN Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	IL36RN (HGNC:15561)
Function	Inhibits the activity of interleukin-36 (IL36A, IL36B and IL36G) by binding to receptor IL1RL2 and preventing its association with the coreceptor IL1RAP for signaling. 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. Proposed to play a role in skin inflammation. May be involved in the innate immune response to fungal pathogens, such as <i>Aspergillus fumigatus</i> . May activate an anti-inflammatory signaling pathway by recruiting SIGIRR.

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	Predominantly expressed in skin keratinocytes but not in fibroblasts, endothelial cells or melanocytes. Detected also in the spleen, brain leukocyte and macrophage cell types. Increased in lesional psoriasis skin.

Background

IL-36RN 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-36RN specifically inhibits the activation of NF-kappaB induced IL-36A (2). The opposing activities of these cytokines have been suggested to be involved in the regulation of skin inflammation (3). Like the IL-36 cytokines (IL-36A, IL-36B and IL-36G), IL-36RN requires post-translational processing for full agonist activity, but the cleavage mechanism is currently unknown (4).

References

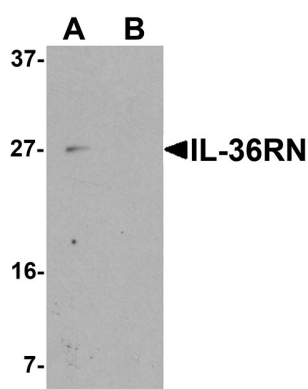
Smith DE, Renshaw BR, Ketchum RR, et al. Four new members expand the interleukin-1 superfamily. *J. Biol. Chem.* 2000; 275:1169-75.

Debets R, Timans JC, Homey B, et al. Two novel IL-1 family members, IL-1 delta and IL-1 epsilon, function as an antagonist and agonist of NF-kappa B activation through the orphan IL-1 receptor-related protein 2. *J. Immunol.* 2001; 167:1440-6.

Blumberg H, Dinh H, Trueblood ES, et al. Opposing activities of two novel members of the IL-1 ligand family regulate skin inflammation. *J. Exp. Med.* 2007; 204:2603-14.

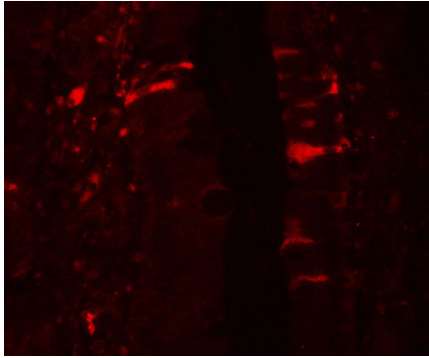
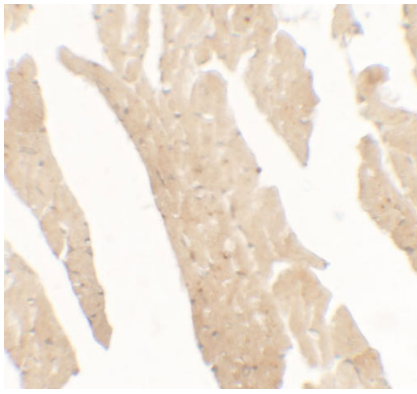
Towne JE, Renshaw BR, Douangpanya J, et al. Interleukin-36 (IL-36) ligands require processing for full agonist (IL-36a, IL-36b, and IL-36g) or antagonist (IL-36Ra) activity. *J. Biol. Chem.* 2011; 286:42594-602.

Images



Western blot analysis of IL-36RN in 3T3 cell lysate with IL-36RN antibody at 1 µg/ml in (A) the absence and (B) the presence of blocking peptide.

Immunohistochemistry of IL-36RN in rat small intestine tissue with IL-36RN antibody at 5 µg/mL.



Immunofluorescence of IL-36RN in rat small intestine tissue with IL-36RN antibody at 20 µg/mL.

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