10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

IL-31 Antibody

Catalog # ASC10398

Product Information

Application	WB, IF, E
Primary Accession	Q6EAL8
Other Accession	AAS82846, 46241139
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	18120
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	IL-31 antibody can be used for the detection of IL-31 by Western blot at 2.5 - 10 g/mL. Despite its predicted size, IL-31 runs at approximately 27 - 30 kDa in SDS-PAGE. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	76399
Other Names	IL-31 Antibody: 1700013B14Rik, Interleukin-31, IL-31, interleukin 31
Target/Specificity	Il31;
Reconstitution & Storage	IL-31 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	IL-31 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Il31 {ECO:0000312|MGI:MGI:1923649}
Function	Functions as a cytokine that binds to IL31RA, a membrane- bound signal-transducing subunit of the IL31 receptor complex (heterodimer composed of OSMR and IL31RA) (By similarity). Functionally, IL31 signaling via OSMR/IL31RA is particularly important in skin immunity (PubMed:15184896). Mechanistically, ligand binding to IL31RA, induces heterodimerization with OSMR, activating JAK1 and JAK2 (and to a lesser extent TYK2) associated with the intracellular domains of IL31RA and OSMR. These kinases phosphorylate tyrosine residues on IL31RA and OSMR, creating docking sites for STAT1, STAT3, and STAT5B, which are then phosphorylated and activated. In addition, the IL31 receptor complex activates the MAPK pathway

(MAPK3/ERK1-MAPK1/ERK2) via recruitment of the adapter protein SHC1 (By similarity). Enhances myeloid progenitor cell survival in vitro (PubMed:17379091). Induces RETNLA and serum amyloid A protein expression in macrophages (PubMed:25847241).

Cellular Location Secreted {ECO:0000250|UniProtKB:Q6EBC2}.

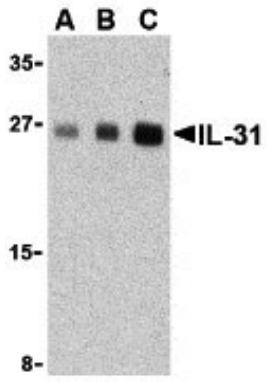
Background

IL-31 Antibody: Interleukin-31 (IL-31) is a recently discovered T-cell cytokine closely related to IL-6 type cytokines and is preferentially produced by T helper type 2 cells. IL-31 activity is mediated through the ligand-induced oligomerization of a dimeric receptor complex containing IL-31 receptor A and oncostatin M receptor. In response to IL-31 binding, these proteins activate the JAK/STAT and the AKT signaling pathways. RNA levels of IL-31 receptor A and oncostatin M receptor are induced in activated monocytes but are expressed constitutively in epithelial cells. IL-31, when overexpressed in transgenic mice, results in the development of pruritis, alopecia, and skin lesions and in humans may result in atopic dermatitis, suggesting that IL-31 may represent a novel target for antipruritic drug development.

References

Dillon SR, Sprecher C, Hammond A, et al. Interleukin 31, a cytokine produced by activated T cells, induces dermatitis in mice. Nat. Immunol. 2004; 5:752-60.
Dreuw A, Radtke S, Pflanz S, et al. Characterization of the signaling capacities of the novel gp130-like cytokine receptor. J. Biol. Chem. 2004; 279:36112-20.
Diveu C, Lak-Hal AH, Froger J, et al. Predominant expression of the long isoform of GP130-like (GPL) receptor is required for interleukin-31 signaling. Eur. Cytokine Netw. 2004; 15:291-302.
Bilsborough J, Leung DY, Maurer M, et al. IL-31 is associated with cutaneous lymphocyte antigen-positive skin homing T cells in patients with atopic dermatitis. J. Allergy Clin. Immunol. 2006; 117:418-25.

Images



Western blot analysis of IL-31 in human skeletal muscle tissue lysate with IL-31 antibody at (A) 2.5, (B) 5 and (C) 10 µg/mL.



Immunofluorescence of IL-31 in Human Skeletal Muscle cells with IL-31 antibody at 20 µg/mL.

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