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

Anti-IL-31Ra Reference Antibody (nemolizumab)

Recombinant Antibody
Catalog # APR10127

Product Information

Application	Functional assay, Kinetics (SPR), Kinetics (BLI), FACS, E, FTA
Primary Accession	Q8NI17
Reactivity	Cynomolgus, Human
Clonality	Monoclonal
Isotype	IgG2
Calculated MW	82954

Additional Information

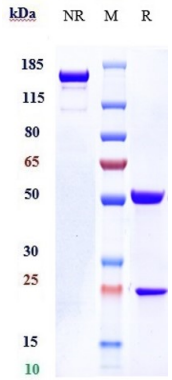
Target/Specificity	IL-31Ra
Endotoxin	
Conjugation	Unconjugated
Expression system	CHO
Format	Purified monoclonal antibody supplied in PBS, pH6.0, without preservative.This antibody is purified through a protein A column.

Protein Information

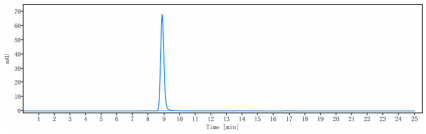
Name	IL31RA (HGNC:18969)
Synonyms	CRL3, GPL
Function	Functions as a membrane-bound signal-transducing subunit of the IL31 receptor complex (heterodimer composed of OSMR and IL31RA) which binds IL31 (PubMed:15184896, PubMed:15194700, PubMed:15627637). Functionally, IL31 signaling via OSMR/IL31RA is particularly important in skin immunity (PubMed:15184896). Mechanistically, ligand binding induces heterodimerization with OSMR, activating JAK1 and JAK2 (and to a lesser extent TYK2) associated with the intracellular domains of IL31RA and OSMR (PubMed:15194700, PubMed:15627637). These kinases phosphorylate tyrosine residues on IL31RA and OSMR, creating docking sites for STAT1, STAT3, and STAT5B, which are then phosphorylated and activated (Probable) (PubMed:11877449, PubMed:15194700, PubMed:15627637). In addition, the IL31 receptor complex activates the MAPK pathway (MAPK3/ERK1-MAPK1/ERK2) via recruitment of the adapter protein SHC1 (PubMed:15194700, PubMed:15627637). Mediates IL31-induced itch, probably in a manner dependent on cation channels TRPA1 and TRPV1 (By similarity). Positively regulates numbers and cycling status of immature subsets of myeloid progenitor cells in bone marrow in vivo and enhances

	myeloid progenitor cell survival in vitro (By similarity).
Cellular Location	Cell membrane; Single-pass type I membrane protein. Presynaptic cell membrane {ECO:0000250|UniProtKB:Q8K5B1}. Cell projection, axon {ECO:0000250|UniProtKB:Q8K5B1}
Tissue Location	Expressed in CD14- and CD56-positive blood cells (PubMed:11877449). Expressed in macrophages (PubMed:16461143, PubMed:18439099). Expressed in keratinocytes (PubMed:21261663) Expressed in a subset of dorsal root ganglia neurons (at protein level) (PubMed:24373353). Expressed at low levels in testis, ovary, brain, prostate, placenta, thymus, bone marrow, trachea and skin (PubMed:11877449, PubMed:14504285, PubMed:15184896). Expressed in bronchial and alveolar epithelial cells and pulmonary fibroblasts (PubMed:18439099). Detected in all of the myelomonocytic lineage (PubMed:14504285). Isoform 6: Expressed at higher levels in lesional skin compared to healthy skin of atopic dermatitis patients (PubMed:24373353).

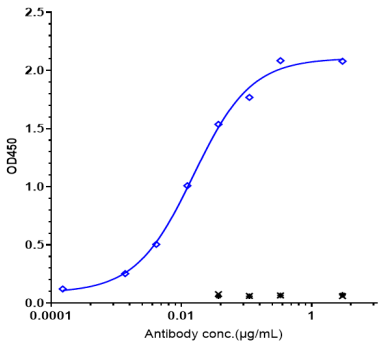
Images



Anti-IL-31Ra Reference Antibody (nemolizumab) on SDS-PAGE under reducing (R) condition. The purity of the protein is greater than 95%.

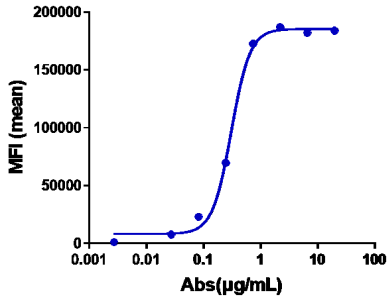


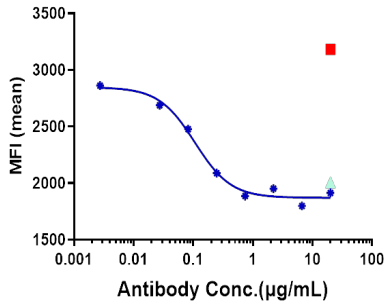
The purity of Anti-IL-31Ra Reference Antibody (nemolizumab) is 100%, determined by SEC-HPLC.



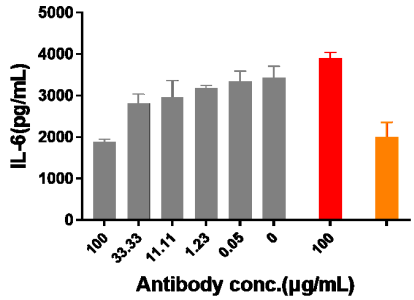
Immobilized human IL31Ra His at 2 ug/mL can bind Anti-IL-31Ra Reference Antibody (nemolizumab), EC50=0.0153 ug/mL.

Human IL31Ra HEK293 cells were stained with Anti-IL-31Ra Reference Antibody (nemolizumab) and negative control protein respectively, washed and then followed by PE and analyzed with FACS, EC50=0.307 ug/mL.





Anti-IL-31Ra Reference Antibody (nemolizumab) P-STAT3 Assay was evaluated using Du145. The IC50 was approximately 0.1068 ug/ml.



Anti-IL-31Ra Reference Antibody (nemolizumab) Activation inhibition was evaluated using Hacat. The max induction fold was approximately 1.86.

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