

#### Anti-IL-31Ra Reference Antibody (nemolizumab) Recombinant Antibody Catalog # APR10127

## **Specification**

# Anti-IL-31Ra Reference Antibody (nemolizumab) - Product Information

Application Primary Accession Reactivity Clonality Isotype Calculated MW FC, Kinetics, Animal Model <u>08NI17</u> Human Monoclonal IgG2SA 144.92 KDa

#### Anti-IL-31Ra Reference Antibody (nemolizumab) - Additional Information

Target/Specificity IL-31Ra

**Endotoxin** < 0.001EU/ μg,determined by LAL method.

Conjugation Unconjugated

Expression system CHO Cell

Format

Purified monoclonal antibody supplied in PBS, pH6.0, without preservative. This antibody is purified through a protein A column.

#### Anti-IL-31Ra Reference Antibody (nemolizumab) - Protein Information

Name IL31RA

Synonyms CRL3, GPL

Function

Associates with OSMR to form the interleukin-31 receptor which activates STAT3 and to a lower extent STAT1 and STAT5 (PubMed:<a href="http://www.uniprot.org/citations/11877449" target="\_blank">11877449</a>, PubMed:<a href="http://www.uniprot.org/citations/14504285" target="\_blank">11877449</a>, PubMed:<a href="http://www.uniprot.org/citations/14504285" target="\_blank">14504285</a>, PubMed:<a href="http://www.uniprot.org/citations/15194700" target="\_blank">15194700</a>, PubMed:<a href="http://www.uniprot.org/citations/15194700" target="\_blank">15194700</a>, PubMed:<a href="http://www.uniprot.org/citations/15627637" target="\_blank">15627637</a>). May function in skin immunity (PubMed:<a href="http://www.uniprot.org/citations/15184896" target="\_blank">15184896</a>). 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**

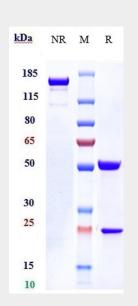
Expressed in CD14- and CD56-positive blood cells (PubMed:11877449). Expressed in macrophages (PubMed:16461143, PubMed:18439099). Expressed in keratinocytes (PubMed:21261663) Expressed in a subset of dorsal root ganglia neurons (at protein level) (PubMed:24373353). Expressed at low levels in testis, ovary, 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).

## Anti-IL-31Ra Reference Antibody (nemolizumab) - Protocols

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

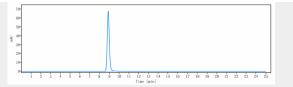
- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

#### Anti-IL-31Ra Reference Antibody (nemolizumab) - Images

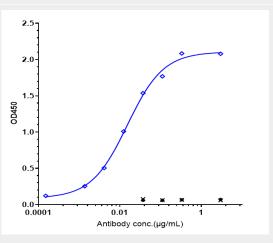


Anti-IL-31Ra Reference Antibody (nemolizumab) on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%

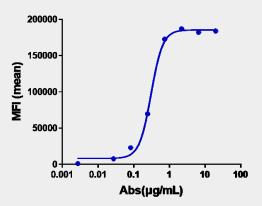




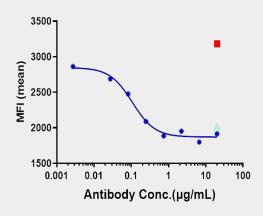
The purity of Anti-IL-31Ra Reference Antibody (nemolizumab)is more than 100% ,determined by SEC-HPLC.



Immobilized human IL31R His at 2  $\,\mu\text{g/mL}$  can bind Anti-IL-31Ra Reference Antibody (nemolizumab)[]EC50=0.0153  $\,\mu\text{g/mL}$ 

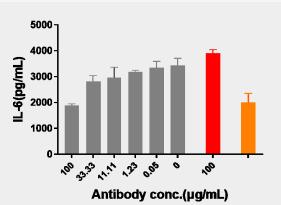


Human IL31R HEK293 cells were stained with Anti-IL-31Ra Reference Antibody (nemolizumab) and negative control protein respectively, washed and then followed by PE and analyzed with FACS, EC181=0.307  $\mu$ g/mL





# 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.