

**DESCRIPTION**

<b>Source</b>	Mouse myeloma cell line, NS0-derived mouse IL-31 RA protein		
	Mouse IL-31RA (Val19-Ser503) Accession # AAM27959.1	DIEGRMD	Human IgG <sub>1</sub> (Pro100-Lys330)
	N-terminus		C-terminus
<b>N-terminal Sequence Analysis</b>	Val19		
<b>Structure / Form</b>	Disulfide-linked homodimer		
<b>Predicted Molecular Mass</b>	82 kDa		

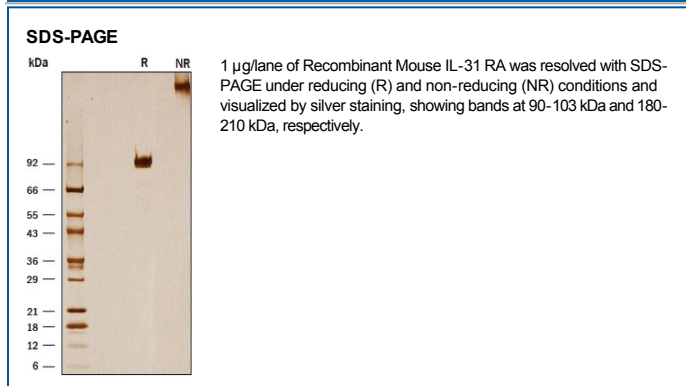
**SPECIFICATIONS**

<b>SDS-PAGE</b>	90-103 kDa, reducing conditions
<b>Activity</b>	Measured by its binding ability in a functional ELISA. When Recombinant Mouse IL-31 RA Fc Chimera is immobilized at 5 µg/mL (100 µL/well), Recombinant Mouse IL-31 (Catalog # 3028-ML) binds with an ED <sub>50</sub> of 0.9-5.4 µg/mL.
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the protein by the LAL method.
<b>Purity</b>	>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 500 µg/mL in PBS.
<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<ul style="list-style-type: none"> <li>• 12 months from date of receipt, ≤ -20 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 3 months, ≤ -20 °C under sterile conditions after reconstitution.</li> </ul>

**DATA**



**BACKGROUND**

The interleukin-31 receptor A subunit (IL-31 RA), also known as gp130-Like Monocyte Receptor (GLM-R or GPL), is a ~100 kDa type I transmembrane glycoprotein that is classified as being a type I cytokine receptor (1, 2). A heterodimeric complex of IL-31 RA and the oncostatin M receptor (OSM R) functions as the signaling receptor for IL-31 (3). Both subunits are inducibly expressed throughout the myelomonocytic lineage and are up-regulated by interferon-gamma and bacterial lipopolysaccharides (1-3). IL-31 RA is also expressed on keratinocytes, dorsal root ganglia neurons, and variably on lung epithelial cells (3-6). The 716 amino acid (aa) mouse IL-31 RA contains an 18 aa signal sequence, a 481 aa extracellular domain (ECD), a 21 aa transmembrane domain and a 196 aa cytoplasmic domain. The ECD of mouse IL-31 RA shares 60% and 84% aa identity with human and rat IL-31 RA ECD, respectively. Mouse IL-31 receptors do not respond to human IL-31 (7). The ECD contains five fibronectin type III domains; the first two contain four conserved cysteine residues and a WSXWS motif common to type I cytokine receptors (2). In both humans and transgenic mice, IL-31 from skin-homing Th2 cells may contribute to the pruritis (itching) associated with nonatopic dermatitis, especially in infected skin (3, 8, 9).

**References:**

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