

**DESCRIPTION**

<b>Source</b>	Human embryonic kidney cell, HEK293-derived cynomolgus monkey IL-23R protein		
	Cynomolgus Monkey IL-23R (Gly24-Asp353) Accession # XP_005543141	IEGRMD	Human IgG <sub>1</sub> (Pro100-Lys330)
	N-terminus		C-terminus
<b>N-terminal Sequence Analysis</b>	Gly24		
<b>Structure / Form</b>	Disulfide-linked homodimer		
<b>Predicted Molecular Mass</b>	65 kDa		

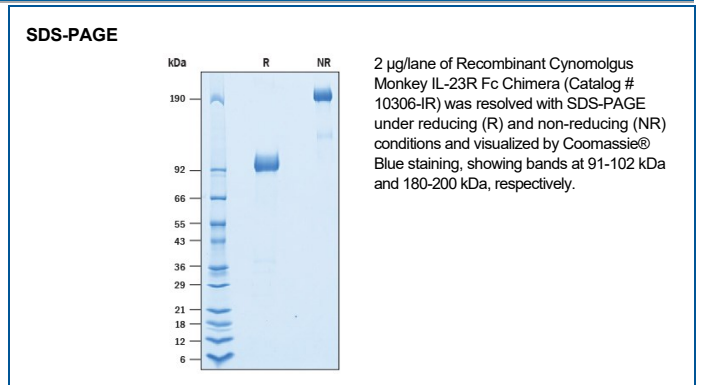
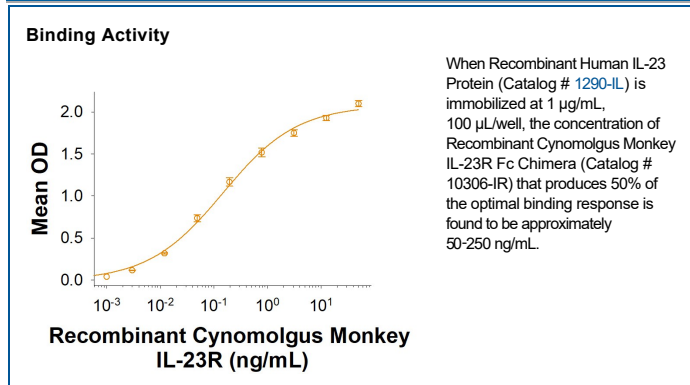
**SPECIFICATIONS**

<b>SDS-PAGE</b>	91-102 kDa, under reducing conditions
<b>Activity</b>	Measured by its binding ability in a functional ELISA. When Recombinant Human IL-23 Protein (Catalog # 1290-IL) is immobilized at 1 µg/mL (100 µL/well), the concentration of Recombinant Cynomolgus Monkey IL-23R Fc Chimera (Catalog # 10306-IR) that produces 50% of the optimal binding response is found to be approximately 50-250 ng/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 visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
<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 200 µg/mL in PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 3 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**DATA**



**BACKGROUND**

Interleukin 23 (IL-23) is a heterodimeric cytokine composed of two disulfide-linked subunits, a p19 subunit that is unique to IL-23, and a p40 subunit that is shared with IL-12 (1-5). The functional IL-23 receptor complex consists of two receptor subunits, the IL-12 receptor beta 1 subunit (IL-12 R beta 1) and the IL-23-specific receptor subunit (IL-23 R) (3). Human IL-23 R cDNA encodes a 629 amino acid (aa) type I transmembrane protein with a 23 aa residue signal peptide, a 330 aa residue extracellular domain, a 23 aa residue transmembrane domain and a 253 aa residue cytoplasmic region. IL-23 R shares structural features with the IL-12 R beta 2, including an N-terminal Ig-like domain, two cytokine receptor domains and multiple glycosylation sites in the extracellular domain. IL-23 R lacks the three extracellular membrane-proximal fibronectin-type III domains present on IL-12 R beta 2. IL-23 R has a WQPWS sequence in the transmembrane-proximal cytokine receptor domain similar to the cytokine receptor signature WSXWS motif (6). The cytoplasmic region of IL-23 R has three potential Src homology 2 domain-binding sites and two potential Stat-binding sites. The gene for human IL-23 R is located on human chromosome 1 within 150 kb of IL-12 R beta 2. Based on quantitative real-time PCR, human IL-23 R mRNA is expressed in a human TH0, TH1 as well as several NK cell lines. Low but detectable levels of IL-23 R mRNA is also expressed in EBV-transformed B cells and activated PBMC. IL-23 initiates a signal transduction cascade similar to that of IL-12, and involves Jak2, Tyk2, Stat1, Stat3, Stat4, and Stat5 (2). The Cynomolgus IL-23 R shares 96%, 71% and 77% amino acid sequence identity to Human, mouse, and rat IL-23 R, respectively.

**References:**

1. Oppmann, B. *et al.* (2000) *Immunity* **13**:715.
2. Lankford, C.S. and Frucht, D.M. (2003) *J. Leukoc. Biol.* **73**:49.
3. Parham, C. *et al.* (2002) *J. Immunol.* **168**:5699.
4. Belladonna, M.L. *et al.* (2002) *J. Immunol.* **168**:5448.
5. Aggarwal, S. *et al.* (2003) *J. Biol. Chem.* **278**:1910.
6. Schroder, J. *et al.* (2015) *J. Biol. Chem.* **290**:359.