

IL-9R Protein, Rat, Recombinant (His)

General Information

Synonyms:	interleukin 9 receptor
Protein Construction:	A DNA sequence encoding the rat IL9R / Interleukin 9 receptor (EDM04022.1) extracellular domain (Met 1-Ala 270) was expressed, fused with a polyhistidine tag at the C-terminus. Predicted N terminal: Val 38
Species:	Rat
Expression Host:	HEK293 Cells
Accession:	A6HDB7
Molecular Weight:	28.2 kDa (predicted); 36 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Measured by its ability to inhibit IL-9 dependent proliferation of MC/9 mouse mast cells. Approximately 0.03-0.15 µg/mL of IL-9R will inhibit 50% of the biological response induced by 50 ng/mL of recombinant ratIL-9.
Purity:	> 90 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

IL9R (Interleukin 9 Receptor) is a Protein Coding gene. The protein encoded by this gene is a cytokine receptor that specifically mediates the biological effects of interleukin 9 (IL9). IL9 is involved in mast cell maturation and the enhancement of IgE production by B cells. Furthermore, linkage data in the human and mice have suggested that

IL9 may contribute to asthma. The ligand binding of this receptor leads to the activation of various JAK kinases and STAT proteins, which connect to different biologic responses. IL9R is known to be autosomal in mice and is X-linked only in primates. The more recent X linkage and more telomeric position of the IL9R gene may explain its autosomal, 'un-inactivated' transcriptional status.

Reference

- Demoulin JB.et al. (1998) Interleukin 9 and its receptor: an overview of structure and function. *Int Rev Immunol.* 16 (3-4): 345-64.
- Sliva D.et al. (1999) Tip60 interacts with human interleukin-9 receptor alpha-chain. *Biochem Biophys Res Commun.* 263 (1): 149-55.
- Renauld JC.et al. (1995) Interleukin-9 and its receptor: involvement in mast cell differentiation and T cell oncogenesis. *J Leukoc Biol.* 57 (3): 353-60.

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