

IL-6R Protein, Canine, Recombinant (His)

General Information

Synonyms:	interleukin 6 receptor
Protein Construction:	A DNA sequence encoding the canine IL6R (XP_855105.1) (Met1-Pro365) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Leu 20
Species:	Canine
Expression Host:	HEK293 Cells
Accession:	A0A8C0PF44
Molecular Weight:	39.8 kDa (predicted)

QC Testing

Biological Activity:	1. Measured by its binding ability in a functional ELISA. 2. Immobilized canine IL6R-His at 10µg/mL (100µL/well) can bind human IL6, the EC50 of human IL6 is 5-50 ng/mL.
Purity:	> 95 % 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

Interleukin 6 receptor (IL-6R) also known as CD126 (Cluster of Differentiation 126) is a type I cytokine receptor. The low concentration of a soluble form of IL-6 receptor (SIL-6R) acts as an agonist of IL-6 activity. In the IL-6R/CD126/IL6R system, both a membrane-bound IL-6R and a SIL-6R protein can mediate IL-6 signals into the cells through the interaction of gp130. The resulting IL-6/SIL-6R protein complex is also capable of binding to gp130

and inducing intracellular signaling. Through this so-called 'trans-signaling' mechanism, IL-6 can stimulate cells that lack an endogenous mL-6R. High levels of IL-6 and SIL-6R have been reported in several chronic inflammatory and autoimmune diseases as well as in cancer. Cancer Immunotherapy Immune Checkpoint Immunotherapy Targeted Therapy

Reference

Barill S, et al. (2000) The role of interleukin-6 and interleukin-6/interleukin-6 receptor-alpha complex in the pathogenesis of multiple myeloma. *Eur Cytokine Netw.* 11(4): 546-51.

Kang KW, et al. (2007) Novel role of IL-6/SIL-6R signaling in the expression of inducible nitric oxide synthase (iNOS) in murine B16, metastatic melanoma clone F10.9, cells. *Free Radic Biol Med.* 42(2): 215-27.

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