

IL-2R gamma/CD132 Protein, Human (HEK293, His-Avi)

Cat. No.:	HY-P78401
Synonyms:	CD132; CIDX; IL-2 R gamma; IL2RG; IMD4; P64; SCIDX; SCIDX1; gammaC
Species:	Human
Source:	HEK293
Accession:	P31785 (L23-N254)
Gene ID:	3561
Molecular Weight:	58-70 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4. Normally 5% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>IL-2R gamma (CD132), a receptor for IL-2, is a member of the type I cytokine receptor family and type 5 subfamily. IL-2R gamma is expressed in leucocyte subsets and human monocytes^{[1][3]}. Human IL-2R gamma consists of extracellular domain (L23-A262), helical domain (V263-L283), and cytoplasmic domain (E284-T369).</p> <p>The sequence of amino acids in IL-2R beta differs in different species. Human IL-2R gamma shares <75% aa sequence identity with mouse and rats.</p> <p>IL-2R gamma has low-affinity for IL-2, but has intermediate affinity for IL-2 when forming heterodimer with IL-2R beta. IL-2R beta/gama heterodimer complex transduces a signal when IL-2 concentrations are relatively high^[1]. IL-2R gamma can be utilized by the IL-2, IL-4, IL-7, IL-9, and IL-15 receptor, and takes part in the development, activation, proliferation, differentiation and regulation of lymphocytes and other cell types^[2]. IL-2R gamma is tightly up-regulated by IL-2 and IFN gamma^[3]. Mutations of L-2R gamma cause human X-linked severe combined immunodeficiency (XSCID)^[4].</p> <p>IL-2R gamma is involved in inflammatory response, and mediates activation of the cells^[1].</p>
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REFERENCES

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- [4]. K Sugamura, et al. The interleukin-2 receptor gamma chain: its role in the multiple cytokine receptor complexes and T cell development in XSCID. *Annu Rev Immunol.* 1996;14:179-209.
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- [6]. Mengmeng Zhao, et al. Expression of Interleukin-2 receptor subunit gamma (IL-2R γ) and its binding with IL-2 induced activation of CD4 T lymphocytes in flounder (*Paralichthys olivaceus*). *Fish Shellfish Immunol.* 2022 Mar;122:426-440.
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Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA