

## IL-21R Protein, Rat (HEK293, His)

Cat. No.:	HY-P73191
Synonyms:	Interleukin-21 receptor; IL-21 receptor; IL-21R; CD360; Nilr
Species:	Rat
Source:	HEK293
Accession:	Q5EBB1 (C20-P236)
Gene ID:	308977
Molecular Weight:	32-50 kDa

### PROPERTIES

AA Sequence	<pre> CLDLTCTYTDY    LWTITCVLET    WSPNPSILSL    TWQDEYEELQ DKETSCSLHA     SGHNTTHMWY    TCHMRLSQFM    SDDVFTVNM DQSSNSSQEC     GSFVLAESIK    PAPPLNVTVT    FSGRYDISWD SIYEEPSNYV     LRGKLQYELQ    YRNLRDPYAV    RPVTKLISVD SRNISLLPQE     FQKDSYQLQ     VRAAPQPGTS    FRGTWSEWSD PIIFQTQAAE     PEAGWDP           </pre>
Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized Human IL-21 at 5 µg/mL (100 µL/well) can bind Rat IL-21R, the ED <sub>50</sub> for this effect is 28.13 ng/mL.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
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 <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
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	Interleukin 21 receptor (IL-21R), a receptor for interleukin-21, is a type I cytokine receptor. It forms a heterodimer with the common gamma subunit and associates with Janus kinase 1 (JAK1). Through this interaction, the receptor facilitates the signaling cascade initiated by interleukin-21, a cytokine with diverse immunoregulatory functions. The formation of the IL-
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21R heterodimer and its association with JAK1 are pivotal steps in transducing the cellular responses triggered by interleukin-21, contributing to the regulation of immune processes and inflammatory pathways. IL-21R is highly expressed in hematological malignancies and enhances the aggressiveness of follicular lymphoma. IL-21R results in the pathogenesis of leukemia and large cell lymphoma through activation of the JAK/STAT signaling pathway. The knockdown of IL-21R markedly suppressed GC cell proliferation and invasion, and IL-21R expression was further validated to be negatively regulated by miR-125a-3p (miR-125a). Moreover, it reduces the growth and invasion of NSCLC cells via inhibiting Wnt/ $\beta$  catenin signaling and PD-L1 expression<sup>[1][2]</sup>.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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