

Animal-Free IL-11 Protein, Mouse (His)

Cat. No.:	HY-P700189AF
Synonyms:	rMuInterleukin-11/IL-11, Fc ; Interleukin-11; Il11; IL-11
Species:	Mouse
Source:	E. coli
Accession:	P47873 (P22-L199)
Gene ID:	16156
Molecular Weight:	Approximately 19.96 kDa

PROPERTIES

AA Sequence	<p> P G P P A G S P R V S S D P R A D L D S A V L L T R S L L A D T R Q L A A Q M R D K F P A D G D H S L D S L P T L A M S A G T L G S L Q L P G V L T R L R V D L M S Y L R H V Q W L R R A G G P S L K T L E P E L G A L Q A R L E R L L R R L Q L L M S R L A L P Q A A P D Q P V I P L G P P A S A W G S I R A A H A I L G G L H L T L D W A V R G L L L L K T R L </p>
Biological Activity	Measure by its ability to induce T11 cells proliferation. The ED ₅₀ for this effect is <0.5 ng/mL. The specific activity of recombinant mouse IL-11 is > 2 x 10 ⁶ IU/mg.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a solution containing 1X PBS, pH 8.0.
Endotoxin Level	<0.1 EU per 1 µg of the protein by the 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	The IL-11 Protein emerges as a versatile cytokine with multifaceted roles, stimulating the proliferation of hematopoietic stem cells and megakaryocyte progenitor cells while inducing megakaryocyte maturation, leading to heightened platelet production. Additionally, IL-11 contributes to hepatocyte proliferation in response to liver damage. Upon binding to its receptor, formed by IL6ST and either IL11RA1 or IL11RA2, IL-11 activates a signaling cascade promoting cell proliferation, a process implicated in various cancers. This signaling triggers the activation of intracellular protein kinases and the
-------------------	--

phosphorylation of STAT3. Notably, the interaction with membrane-bound IL11RA and IL6ST leads to 'classic signaling,' while the binding of soluble IL11RA to IL6ST stimulates 'trans-signaling.' IL-11 further forms a multimeric signaling complex by interacting with either IL11RA1 or IL11RA2, highlighting its pivotal role in orchestrating diverse cellular responses.

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