

## Animal-Free IL-34 Protein, Mouse (His)

Cat. No.:	HY-P700209AF
Synonyms:	Interleukin-34; IL-34; C16orf77
Species:	Mouse
Source:	E. coli
Accession:	Q8R1R4 (N21-P235)
Gene ID:	76527
Molecular Weight:	Approximately 25.52 kDa

### PROPERTIES

AA Sequence	<p>M N E N L E I W T L      T Q D K E C D L T G      Y L R G K L Q Y K N      R L Q Y M K H Y F P</p> <p>I N Y R I A V P Y E      G V L R V A N I T R      L Q K A H V S E R E      L R Y L W V L V S L</p> <p>N A T E S V M D V L      L E G H P S W K Y L      Q E V Q T L L E N V      Q R S L M D V E I G</p> <p>P H V E A V L S L L      S T P G L S L K L V      R P K A L L D N C F      R V M E L L Y C S C</p> <p>C K Q S P I L K W Q      D C E L P R L H P H      S P G S L M Q C T A      T N V Y P L S R Q T</p> <p>P T S L P G S P S S      S H G S L P</p>
Biological Activity	Measure by its ability to induce proliferation in NFS-60 cells. The ED <sub>50</sub> for this effect is <30 ng/mL. The specific activity of recombinant mouse IL-34 is > 3.3 x 10 <sup>4</sup> IU/mg.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a solution containing 1X PBS, pH 7.4.
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 <sub>2</sub> 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	Interleukin-34 (IL-34) is a cytokine with pivotal functions in innate immunity and inflammatory processes, as it promotes the proliferation, survival, and differentiation of monocytes and macrophages. Additionally, IL-34 plays a crucial role in the regulation of osteoclast proliferation and differentiation, influencing bone resorption. The cytokine's impact is mediated through its interaction with CSF1R, leading to the activation of downstream effectors and subsequent phosphorylation of
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MAPK1/ERK2 and MAPK3/ERK1. Structurally, IL-34 exists as a homodimer, and its intricate involvement in immune regulation and bone homeostasis highlights its significance in orchestrating cellular responses and maintaining tissue integrity.

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

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