

## Product Data Sheet

# IL-34 Protein, Mouse (HEK293, His)

Cat. No.:	HY-P73212
Synonyms:	Interleukin-34; IL-34; C16orf77
Species:	Mouse
Source:	HEK293
Accession:	Q8R1R4 (N21-P235)
Gene ID:	76527
Molecular Weight:	Approximately 38-40 kDa due to the glycosylation.

PROPERTIES	
FROFERIES	
AA Sequence	NENLEIWTLT QDKECDLTGY LRGKLQYKNR LQYMKHYFPI NYRIAVPYEG VLRVANITRL QKAHVSEREL RYLWVLVSLN ATESVMDVLL EGHPSWKYLQ EVQTLLENVQ RSLMDVEIGP HVEAVLSLLS TPGLSLKLVR PKALLDNCFR VMELLYCSCC KQSPILKWQD CELPRLHPHS PGSLMQCTAT NVYPLSRQTP TSLPGSPSSS HGSLP
Biological Activity	1.Measured in a cell proliferation assay using M-NFS-60 mouse myeloid cells and the ED <sub>50</sub> is typically ≤200 ng/mL. 2.Measured by its ability to bind biotinylated recombinant mouse CSF1R in a functional ELISA.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 $\mu m$ filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	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-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 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.

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

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