

IL-27 Protein, Mouse (228a.a, HEK293, His, solution)

Cat. No.:	HY-P73200Y
Synonyms:	Interleukin-27 subunit beta; IL-27B; Ebi3; Interleukin-27 subunit alpha; IL-27A; p28
Species:	Mouse
Source:	HEK293
Accession:	O35228 (Y19-P228) & GSGSGGSGGSGGK& Q8K3I6 (F29-S234)
Gene ID:	50498&246779
Molecular Weight:	Approximately 60 kDa

PROPERTIES

AA Sequence	<pre> Y T E T A L V A L S Q P R V Q C H A S R Y P V A V D C S W T P L Q A P N S T R S T S F I A T Y R L G V A T Q Q Q S Q P C L Q R S P Q A S R C T I P D V H L F S T V P Y M L N V T A V H P G G A S S S L L A F V A E R I I K P D P P E G V R L R T A G Q R L Q V L W H P P A S W P F P D I F S L K Y R L R Y R R R G A S H F R Q V G P I E A T T F T L R N S K P H A K Y C I Q V S A Q D L T D Y G K P S D W S L P G Q V E S A P H K P G S G S G G S G G S G S G K L F P T D P L S L Q E L R R E F T V S L Y L A R K L L S E V Q G Y V H S F A E S R L P G V N L D L L P L G Y H L P N V S L T F Q A W H H L S D S E R L C F L A T T L R P F P A M L G G L G T Q G T W T S S E R E Q L W A M R L D L R D L H R H L R F Q V L A A G F K C S K E E E D K E E E E E E E E E E K K L P L G A L G G P N Q V S S Q V S W P Q L L Y T Y Q L L H S L E L V L S R A V R D L L L L S L P R R P G S A W D S </pre>
Biological Activity	<p>1. Measured by its binding ability in a functional ELISA. Immobilized mouse IL27-His at 10 µg/mL (100 µl/well) can bind human IL27RA-Fc and the EC₅₀ is 0.26-0.62 µg/mL.</p> <p>2. Measured in antiviral assay using HepG2 cells infected with vesicular stomatitisvirus (VSV) and the ED₅₀ is 2-10ng/mL.</p>
Appearance	Solution.
Formulation	Supplied as a 0.22 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice

DESCRIPTION

Background

IL-27 is mainly produced by cells of myeloid origin such as monocytes, macrophages, dendritic cells, and microglial cells, in response to stimuli acting through Toll-like receptors or TNF-R-family members^[3].

The amino acid sequence of human IL-27 protein has low homology for mouse IL-27 protein.

IL-27 acts through a heterodimer receptor consisting of IL-27R α (WSX1) and gp130 chains, activates the JAK/STAT signaling pathway, which mainly involves STAT1 and STAT3 phosphorylation. STAT3 activation by IL-27 induces the expression of SOCS3, which inhibits further IL-27 signaling in a negative feedback loop, through inhibition of JAK activity^[3].

IL-27 plays multiple roles in proinflammatory and anti-inflammatory immune responses. IL-27 enhances NF- κ B/AP-1 activity and increases IL-12p40, TNF- α , and IL-6 production, increases TLR4 and TLR5 expression^[5]. IL-27 exerts inhibitory effects upon hPMSC adherence and proliferation, and promotes migration of hPMSCs. Besides, IL-27 can upregulate PDL1 expression and enhance the regulatory effects of hPMSCs on Th1 and Th2 cell differentiations and IL-10 secretion from CD4+T cells^[6]. IL-27 induces the proliferation and differentiation in hematopoietic stem cells^[7]. IL-27 increases IL-10 levels and the expression of p-STAT1, p-STAT3^[8]. IL-27 promotes the development and differentiation of CD4+IL-10+ T cells^[9].

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

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