



Recombinant Human IL-37 (IL-1F7)

20180504BB



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	100-161
Size:	25 µg
Lot. No.:	According to product label

Scientific Background

Gene-ID (NCBI):	27178
Synonyms:	Interleukin-37, IL-1F7, IL-1ζ (zeta), IL-1H4

The IL-1 family is comprised of 11 structurally related ligands, including recently re-named IL-37 (IL-1F7), which acts as a modulator of the immune response. Reduction of IL-37 synthesis in PBMCs leads to increased production of proinflammatory cytokines including IL-1 alpha, IL-1 beta, IL-6 and TNF- alpha. The role of IL-37 as an inhibitor of the innate inflammatory response is also corroborated by the observation that it is highly expressed in synovial tissue from patients with rheumatoid arthritis. Full length IL-37 resides primarily in the cytoplasm, but after activation through cleavage by CASP1, it can translocate to the nucleus where it exerts its activity by direct interaction with SMAD3. Recombinant Human IL-37 is a 19.4 kDa protein consisting of 174 amino acids, corresponding to the mature activated form of IL-37.

Sequence

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MVHTSPKVKN LNPKKFSIHD QDHKVLVLDL GNLIIVDPKN  
YIRPEIFFAL ASSLSSASAE KGSPILLGVS KGEFCLYCDK  
DKGQSHPSLQ LKKEKLMKLA AQKESARRPF IFYRAQVGSW  
NMLESAAHPG WFICTSCNEN EPVGVTDKFE NRKHIEFSFO  
PVCKAEMSPS EVSD
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Database References

Protein RefSeq:	NP_055254.2.
Uniprot ID:	Q9NZH6
mRNA RefSeq:	NM_014439.3.

Product Specifications

Expressed in	E. coli
Purity	> 95% by SDS-PAGE & HPLC analyses
Endotoxin level	< 0.1 ng /µg of protein (<1EU/µg).
Formulation	Lyophilized (10 mM Tris, pH 7.4 + 50mM NaCl)
Length (aa):	174
MW:	19.4 kDa

Stability: The lyophilized protein is stable at room temperature for 1 month and at 4°C for 6 months. Reconstituted working aliquots are stable for 1 week at 2°C to 8°C and for 3 months at -20°C to -80°C.

Reconstitution: Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1 – 1.0 mg/ml. *Do not vortex.* This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.



AVOID REPEATED FREEZE AND THAW CYCLES!

Biological Activity: Measured by its ability to bind Interleukin-18 Binding Protein isoform a (IL-18 BPa) in functional ELISA.