



Interleukin-1 Family Member 7, human recombinant (rHuIL-1F7)

Catalog No: 97487
Lot No: XXXXX
Source: *E. coli*
Synonyms: Interleukin-37, FIL1 zeta, IL-1X, Interleukin-1 family member 7, IL-1F7, Interleukin-1 homolog 4, IL-1H, IL-1H4, Interleukin-1 zeta, IL-1 zeta, Interleukin-1-related protein, IL-1RP1, Interleukin-23, IL-37, IL37, FIL1Z, IL1F7, IL1H4, IL1RP1, FIL1, FIL1(ZETA)

Background

Human interleukin family 1, member 7 (IL1F7) belongs to the interleukin 1 cytokine family. There are 5 alternatively spliced transcript variants encoding distinct isoforms with distinct expression profiles. The longest IL-1F7 transcript, named IL1F7b or IL1F7 isoform 1, encodes a 218 aa residues proprotein and containing a 45 aa propeptide which is cleaved to produce a mature protein. IL1F7b binds to IL18 Rb with low affinity however it doesn't exert any IL18 agonistic or antagonistic effects. IL1F7b also binds IL18BP (interleukin 18 binding protein), which is an inhibitory binding protein of interleukin 18 (IL18), and afterward forms a complex with IL18 receptor beta subunit, and through which it inhibits the activity of IL18.

Description

Interleukin-37 (IL1F7) human recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 167 amino acids (Lys53-Asp218) and having a molecular mass of 18.6 kDa. IL-37 (IL-1F7) is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

IL1F7 was lyophilized after extensive dialysis against 20 mM phosphate buffer, pH 7.4.

Solubility

It is recommended to quick spin followed by reconstitution of IL1F7 in PBS to a concentration no less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized IL1F7, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL1F7 should be stored at 4°C between 2-7 days and for future use below -18°C. Please prevent freeze-thaw cycles.

Purity

Greater than 95.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

MKLNLPKKFS IHDQDHKVLV LDSGNLIAVP DKNYIRPEIF FALASSLSSA SAEKGSPIIL GVSKGEFCLY CDKDKGQSHP
SLQLKKEKLM KLAAQKESAR RPFIFYRAQV GSWNMLESAA HPGWFICTSC NCNEPVGVTD KFENRKHIEF SFQPVCKAEM
SPSEVSD

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Activity

As measured by its binding ability in a functional ELISA, immobilized IL1F7 at 1 µg/ml (100 µl/well) can bind rhIL-18 R/Fc Chimera with a linear range of 0.015 - 1 µg/ml.

Usage

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