

## IL-1F8 Protein, Human, Recombinant

### General Information

Synonyms:	FIL1-(ETA);FIL1-(ETA);IL-1H2;IL1F8;IL1H2;FIL1;IL-1F8;interleukin 36, $\beta$ ;FIL1H;IL36B;interleukin 36, beta;IL1-ETA
Protein Construction:	Arg5-Glu157
Species:	Human
Expression Host:	E. coli
Accession:	Q9NZH7-2
Molecular Weight:	17.23 kDa (predicted); 18 kDa (reducing conditions)

### QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95% as determined by Bis-Tris PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/ $\mu$ g of the protein as determined by the LAL method.
Formulation:	Lyophilized from 0.22 $\mu$ m filtered solution in PBS, 8% trehalose, 0.02% Tween-20 (pH 7.4).

### Preparation and Storage

#### Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100  $\mu$ g/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

#### Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

#### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

Interleukin-1 family member 8(IL1F8) also known as IL36B, is a member of the interleukin 1(IL-1) cytokine family. IL1F8 may contain a 12-stranded beta-trefoil structure. Until recently, the IL-1 family of cytokines includes four members, with three having pro-inflammatory effects such as IL1F8 and the fourth member being an IL-1 receptor antagonist (IL-1Ra). IL-1 family members exert their effects through binding to receptors that belong to the IL-1 receptor (IL-1R) family. IL1F8 exerts proinflammatory effects in primary human joint cells. Joint and serum IL-1F8

protein levels did not correlate with inflammation, but they were high in some human serum samples tested, including samples from patients with rheumatoid arthritis. IL1F8 also activated NK- $\kappa$ B.

### Reference

Magne D, et al. (2006) The new IL-1 family member IL-1F8 stimulates production of inflammatory mediators by synovial fibroblasts and articular chondrocytes. *Arthritis Research & Therapy*. 8: R80.

Smith DE, et al. (2000) The new IL-1 family member IL-1F8 stimulates production of inflammatory mediators by synovial fibroblasts and articular chondrocytes. *The Journal of Biological Chemistry*. 275: 1169-75.

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