

# Recombinant Human IL36G protein

**Cat. No.** IL36G-511H    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| <b>Product Overview</b> | Recombinant Human IL36G protein (Interleukin-36 gamma, 152a.a.) was expressed in Escherichia coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>ProteinLength</b>    | 152                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Description</b>      | Interleukin-36 (IL-36) is a pro-inflammatory cytokine which plays an important role in the pathophysiology of several diseases. IL-36 $\alpha$ , IL-36 $\beta$ , and IL-36 $\gamma$ (formerly IL-1F6, IL-1F8, and IL-1F9) are IL-1 family members that signal through the IL-1 receptor family members IL-1Rrp2 (IL-1RL2) and IL-1RAcP. IL-36 $\gamma$ is secreted when transfected into 293-T cells and it could constitute part of an independent signaling system analogous to interleukin-1 alpha (IL-1A), beta (IL-1B) receptor agonist and interleukin-1 receptor type I (IL-1R1). Furthermore, IL-36 $\gamma$ also can function as an agonist of NF-kappa B activation through the orphan IL-1-receptor-related protein 2. Human IL-36 $\gamma$ (152a.a) shares 58 %, 59 %, 68 % and 69 % a.a. sequence identity with mouse, rat, bovine and equine IL-36 $\gamma$ , respectively, and 23 - 57% a.a. sequence identity with other family members. |
| <b>Form</b>             | Lyophilized from a 0.2 $\mu$ m filtered concentrated solution in PBS, pH 7.4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Bio-activity</b>     | Fully biologically active when compared to standard. The ED50 as determined by its                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

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|                       |                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       | ability to induce IL-8 secretion by human preadipocytes is less than 10 ng/ml, corresponding to a specific activity of $> 1 \times 10^5$ IU/mg.                                                                                                                                                                                                                                                   |
| <b>Molecular Mass</b> | Approximately 17.0 kDa, a single non-glycosylated polypeptide chain containing 152 amino acids.                                                                                                                                                                                                                                                                                                   |
| <b>AA Sequence</b>    | SMCKPITGTINDLNQQVWTLQGQNLVAVPRSDSVTPVTVAVITCKYPEALEQGRGD<br>PIYLGIQNPMECLYCEKVGEQPTLQLKEQKIMDLYGQPEPVKPFLFYRAKTGRTSTL<br>ESVAFPDWFIASSKRDQPIILTSELGKSYNTAFELNIND                                                                                                                                                                                                                                  |
| <b>Endotoxin</b>      | Less than 1 EU/μg of rHuIL-36y, 152a.a. as determined by LAL method.                                                                                                                                                                                                                                                                                                                              |
| <b>Purity</b>         | >95% by SDS-PAGE and HPLC analysis.                                                                                                                                                                                                                                                                                                                                                               |
| <b>Storage</b>        | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.                                                                                                   |
| <b>Reconstitution</b> | We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at $\leq -20$ centigrade. Further dilutions should be made in appropriate buffered solutions. |

## GENE INFORMATION

|                        |       |
|------------------------|-------|
| <b>Gene Name</b>       | IL36G |
| <b>Official Symbol</b> | IL36G |

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**Synonyms** IL36G; interleukin 36, gamma; IL1F9, interleukin 1 family, member 9; interleukin-36 gamma; IL 1F9; IL 1H1; IL 1RP2; IL1E; IL1H1; interleukin 1 related protein 2; interleukin 1 epsilon; interleukin 1 homolog 1; IL-1 epsilon; IL-1-epsilon; IL-1(EPSILON); interleukin-1 epsilon; IL-1 related protein 2; IL-1-related protein 2; interleukin-1 homolog 1; interleukin-1 family member 9; interleukin 1 family, member 9; interleukin 1-related protein 2; IL1F9; IL-1F9; IL-1H1; IL1RP2; IL-1RP2;

**Gene ID** 56300

**mRNA Refseq** NM\_019618

**Protein Refseq** NP\_062564

**MIM** 605542

**UniProt ID** Q9NZH8

**SDS-PAGE of IL36G-511H**

