

Recombinant Human Interleukin-36A (rh IL-36A/IL1F6)

Synonyms: FIL1E, interleukin 1 family member 6 (epsilon), MGC129552.

Introduction: Human IL-36A belongs to the IL-1 family which includes IL-1b, IL-1a, IL-1ra, IL-18, IL-36ra (IL1F5), IL-36b (IL1F8), IL-36g (IL1F9), IL-37 (IL1F7) and IL-38 (IL-1F10). The IL-1 family members display a 12 b-strand, b-trefoil configuration, and are thought to have ascended from a mutual ancestral gene. IL-36A is an 18-22kDa, 158aa intracellular and secreted protein which holds no signal sequence, no prosegment and no potential from N-linked glycosylation sites. IL-36A is released as a reaction to LPS and the cell ATP-induced activation of the P2X7 receptor.

Human IL-36A (aa 6-158) shares 57-68% aa sequence homology with mouse, rabbit, equine and bovine IL-36A and 27-57% aa sequence homology with other new IL-1 family members. IL-36A is mostly found in skin and lymphoid tissues, but also in fetal brain, trachea, stomach and intestine.

Description: Human recombinant IL-36A produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 153 amino acids (aa 6-158) and having a molecular mass of 17.0kDa.

The IL-36A is purified by proprietary chromatographic techniques.

Source: *Escherichia Coli*

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation: Lyophilized from a 0.2µm filtered concentrated solution in 20mM Tris-HCl, 150mM NaCl, 0.1% Tween20, pH 8.0.

The aliquotes of 1µg and 2µg contain Trehalose 5% (w/vol) for better recovery

Solubility: It is recommended to reconstitute the lyophilized rh IL-36A in sterile water not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rh IL-36A although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution rh IL-36A should be stored at 4°C between 2-7days, for future use below -18°C. Please prevent freeze-thaw cycles.

Amino Acid Sequence: KIDTPQQGSI QDINHRVWVL QDQTLIAVPR KDRMSPTVIA LISCRHVETL EKDRGNPIYL GLNGLNLCLM CAKVGdqPTL QLKEKDIMDL YNQPEPVKSF LFYHSQSGRN STFESVAFPG WFIASSEGG CPLILTQELG KANTTDFGLT MLF

Purity: Greater than 95.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

Biological Activity: Fully biologically active when compared to standard. The ED50 as measured by its ability to induce IL-8 secretion in human preadipocytes is less than 10ng/ml, corresponding to a specific activity of 1×10^5 IU/mg.

This material is offered for **research use only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	2 µg	Cat.N°	11340362
<i>medium</i>	10 µg	Cat.N°	11340363

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