



Interleukin-36 Gamma, mouse recombinant (rmlL-36G)

Catalog No: 97653
Lot No: XXXXX
Source: *E. coli*
Synonyms: Interleukin-36 gamma, Interleukin-1 family member 9, IL-1F9, IL36g, IL1f9

Background

IL-36gamma belongs to the IL-1 family which includes IL-1b, IL-1a, IL-1ra, IL-18, IL-36 Ra (IL-1F5), IL-36a (IL-1F6), IL-36b (IL-1F8), IL-37 (IL-1F7) and 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-36g is an 18-22 kDa, 169aa intracellular and secreted protein which holds no signal sequence, no prosegment and no potential N-linked glycosylation sites. Human IL-36g shares 58%- 69% aa sequence homology with mouse, rat, bovine and equine IL-36g, and 23 - 57% aa sequence homology with other family members. The IL-36g receptor is a mixture of IL-1 Rrp2, mostly located in epithelia and keratinocytes, and the extensively expressed IL-1 RAcP. All IL-36 (a, b and g) activate NF-kappaB and MAPK pathways in an IL-1 Rrp2 dependent reaction. Additionally, IL-36g induces production of inflammatory cytokines and chemokines like CXCL8/IL-8.

Description

IL36G Mouse Recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 152 amino acids and having a molecular mass of 17.3 kDa. IL36G is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM Tris-HCl, pH 8.5, 150 mM NaCl and Tween-20.

Solubility

It is recommended to reconstitute the lyophilized IL36g in sterile 18 MΩ-cm H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized IL36g Mouse although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL36g 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 97.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

GRETPDFGEV FDLDQQVWIF RNQALVTVPR SHRVTVPVSVT ILPCKYPESL EQDKGIAIYL GIQNPDKCLF CKEVNGHPTL
LLKEEKILDL YHHPEPMKPF LFYHTRTGGT STFESVAFPG HYIASSKTGN PIFLTSKKGE YYNINFNLDI KS

Activity

The ED₅₀ as determined by inducing IL-6 secretion in murine NIH/3T3 cells is less than 10 ng/ml, corresponding to a specific activity of > 1.0 x 10⁵ IU/mg.

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