



Interleukin-36 gamma, human recombinant (rHuIL-36g)

Catalog No: 97516
Lot No: XXXXX
Source: *E. coli*
Synonyms: Interleukin 36 gamma, IL1F9, interleukin 1 family member 9, Interleukin-1 epsilon, IL-1RP2, IL-1H1, IL1E, interleukin 1-related protein 2, Interleukin-1 homolog 1

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 N F- κ B 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 human recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 169 amino acids and having a molecular mass of 18.7 kDa. IL36G is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

Lyophilized from a 0.2 μ m filtered concentrated solution in 1xPBS, pH 7.4 and 5% trehalose.

Solubility

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

Stability

Lyophilized IL36g, 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 95.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

MRGTPGDADG GGRAVYQSMC KPITGTINDL NQQVWTLQGQ NLVAVPRSDS VTPVTVAVIT CKYPEALEQG RGDPIYLGIQ
NPPEMCLYCEK VGEQPTLQLK EQKIMDLYGQ PEPVKPFLFY RAKTGRTSTL ESVAFPWF I ASSKRDQPII LTSELGKSYN
TAFELNIND

Activity

Measured by its binding ability in a functional ELISA to bind recombinant human IL-1 Rrp2 Fc Chimera.

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