



Interleukin-36 gamma 152 a.a., human recombinant (rHuIL-36g-152aa)

Catalog No: 97515
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 (152) human recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 152 amino acids and having a molecular mass of 17.0 kDa. IL36G (152) 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, containing 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 SDS-PAGE.

Amino Acid Sequence

SMCKPITGTI NDLNQVWTL QGQNLVAVPR SDSVTPVTVV VITCKYPEAL EQGRGDPIYL GIQNPENCLY CEKVGEQPTL
QLKEQKIMDL YGQPEPVKPF LFYRAKTGRV STLESVAFPD WFIASSKRDQ PIILTSELGK SYNTAFELNI ND

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 15 ng/ml, corresponding to a specific activity of 67,000 IU/mg.

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BIOMOL GmbH • Kieler Straße 303a • 22525 Hamburg • Germany • info@biomol.de • www.biomol.de

Fon: +49 (0)40-853 260 0 • TOLL FREE IN GERMANY: Fon: 0800-246 66 51