

Recombinant Human Interleukin-36 gamma, 169aa

(Human IL-36 γ ,169aa)

Product Information

Product Name	Cat#	Size
	90128ES10	10 μ g
Recombinant Human Interleukin-36 gamma, 169aa (Human IL-36 γ ,169aa)	90128ES60	100 μ g
	90128ES76	500 μ g

Product Description

IL-36 gamma [previously called IL-1F9, IL-1 epsilon (epsilon), and IL-1H1] is a member of the IL-1 family which includes IL-1 beta, IL-1 alpha, IL-1ra, IL-18, IL-36 Ra (IL-1F5), IL-36 alpha (IL-1F6), IL-36 beta (IL-1F8), IL-37 (IL-1F7) and IL-1F10. All family members show a 12 beta-strand, beta-trefoil configuration, and are believed to have arisen from a common ancestral gene. IL-36 gamma is an 18-22 kDa, 169 amino acid intracellular and secreted protein that contains no signal sequence, no prosegment and no potential N-linked glycosylation sites. Human IL-36 gamma (aa 18-169) shares 58%, 59%, 68% and 69% aa sequence identity with mouse, rat, bovine and equine IL-36 gamma, respectively, and 23-57% aa sequence identity with other family members. 134 aa isoform missing aa 19-53 has been reported. Highest levels of IL-36 gamma are produced by Langerhans cells, keratinocytes, and stomach Chief cells and parietal cells; these cells contribute to first-line defense against pathogens in the skin, lungs and digestive tract. Its expression is induced by LPS treatment of monocytes, and by IL-1 alpha / beta, IL-17 or TNF- alpha treatment of keratinocytes and bronchial epithelia. Skin IL-36 gamma expression is increased in contact hypersensitivity and psoriasis. It is elevated in inflammatory disorders of the lung (such as asthma) and viral infections. Lung IL-36 gamma and other IL-36 proteins contribute to neutrophil influx. The receptor for IL-36 gamma is a combination of IL-1 Rrp2, mainly found in epithelia and keratinocytes, and the widely expressed IL-1 RAcP. IL-36 alpha, beta and gamma all activate NF- kappa B and MAPK pathways in an IL-1 Rrp2 dependent manner, and IL-36 gamma induces production of inflammatory cytokines and chemokines such as CXCL8/IL-8.

Product Properties

Synonyms	IL-1RP2, IL-1 epsilon, IL-1F9, IL-1H1
Accession	Q9NZH8
GeneID	56300
Source	E.coli-derived human Interleukin-36 gamma protein, Met1-Asp169, with an N-terminal Met.
Molecular Weight	Approximately 18.7 kDa.
AA Sequence	MRGTPGDADG GGRAVYQSMC KPITGTINDL NQQVWTLQGG NLVAVPRSDS VTPVTVAVIT CKYPEALEQG RGDPIYLGIQ NPEMCLYCEK VGEQPTLQLK EQKIMDLYGQ PEPVKPFLFY RAKTGRSTL ESVAFPDWF I ASSKRDP II LTSELGKSYN TAFELNIND
Tag	None
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	> 95% by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The specific activity is determined by its binding ability in a functional ELISA. Immobilized rHuIL-36 γ at 1 μ g/mL can bind recombinant human IL-1 Rrp2 Fc Chimera with a range of 0.15-5 μ g/mL.

Endotoxin	< 1.0 EU per 1µg of the protein by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4. We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom.
Reconstitution	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 ≤ -20°C. Further dilutions should be made in appropriate buffered solutions.

Shipping and Storage

The products are shipped with ice pack and can be stored at -20°C to -80°C for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

Cautions

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only.