Recombinant Human IL-36γ/IL-1F9
(aa 18-169)
Catalog Number: 6835-IL/CF

DESCRIPTION
Source  E. coli-derived
Ser18-Asp169
Accession # Q9NZH8

N-terminal Sequence Analysis
Predicted Molecular Mass  17 kDa

SPECIFICATIONS
SDS-PAGE  17 kDa, reducing conditions
The ED50 for this effect is typically 3-15 ng/mL.
Endotoxin Level <0.01 EU per µg of the protein by the LAL method.
Purity >95%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Formulation Lyophilized from a 0.2 µm filtered solution in MOPS, NaCl, TCEP and EDTA. See Certificate of Analysis for details.

PREPARATION AND STORAGE
Reconstitution Reconstitute at 100 µg/mL in PBS.
Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA

BACKGROUND
IL-36γ [previously called IL-1F9, IL-1ε (epsilon), and IL-1H1] is a member of the IL-1 family which includes IL-1β, IL-1α, IL-1ra, IL-18, IL-36 Ra (IL-1F5), IL-36α (IL-1F6), IL-36β (IL-1F8), IL-37 (IL-1F7) and IL-1F10 (1-5). All family members show a 12-strand, β-trefoil configuration, and are believed to have arisen from a common ancestral gene (2, 3). IL-36γ is an 18-22 kDa, 169 amino acid (aa) intracellular and secreted protein that contains no signal sequence, no prosegment and no potential N-linked glycosylation sites (1, 2, 4, 6, 7). Human IL-36γ (aa 18-169) shares 58%, 59%, 68% and 69% aa sequence identity with mouse, rat, bovine and equine IL-36γ, respectively, and 23-57% aa sequence identity with other family members. A 134 aa isoform missing aa 19-53 has been reported (8). Highest levels of IL-36γ 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 (2, 3, 6, 9). Its expression is induced by LPS treatment of monocytes, and by IL-1α/β, IL-17 or TNFα treatment of keratinocytes and bronchial epithelia (1, 6, 7, 9-11). Skin IL-36γ expression is increased in contact hypersensitivity and psoriasis (1, 6, 11). It is elevated in inflammatory disorders of the lung (such as asthma) and viral infections. Lung IL-36γ and other IL-36 proteins contribute to neutrophil influx (4, 7, 10).

References:
8. SwissProt Accession # Q9NZH8.

Bioactivity
Recombinant Human IL-36γ/IL-1F9 (aa 18-169) (Catalog # 6835-IL/CF) induces IL-8 secretion in human preadipocytes. The ED50 for this effect is typically 3-15 ng/mL.