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California Bioscience

Product Datasheet

Product Name	Interleukin-32 alpha Human Recombinant
Cata No	CB501318
Source	*Escherichia Coli.*
Synonyms	NK4, TAIF, TAIFa, TAIFb, TAIFc, TAIFd, IL-32beta, IL-32alpha, IL-32delta, IL-32gamma, Interleukin-32, IL-32, Natural killer cells protein 4, Tumor necrosis factor alpha-inducing factor, IL-32a, IL32a, IL32, Interleukin-32 alpha.

Description

IL-32 is part of the cytokine family and contains a tyrosine sulfation site, 3 potential N-myristoylation sites, multiple putative phosphorylation sites, and an RGD cell-attachment sequence. IL-32 expression is elevated after the activation of T-cells by mitogens or the activation of NK cells by IL-2. IL-32 induces the production of TNF-a from macrophage cells. IL-32 pro-inflammatory pathway is activated in response to influenza A virus infection. Dysregulation of IL-32 in myelodysplastic syndrome and chronic myelomonocytic leukemia modulates apoptosis and impairs NK function. Induction of TNF, IL-1beta, and IL-6 by IL-32 is intervened by p38-MAPK. IL-32 induced monocyte-to-macrophage differentiation is mediated through nonapoptotic, caspase-3-dependent mechanisms. IL32 plays an important role in the pathogenesis of rheumatoid arthritis. IL-32 is involved in activation-induced cell death in T cells, through its intracellular actions. IL-32 is a cell-associated proinflammatory cytokine, which is particularly stimulated by mycobacteria through a caspase-1- and IL-18-dependent production of interferon gamma. IL-32 is associated with TNF-a, IL-1beta, and IL-18. IL32 is involved in human rheumatoid arthritis and is a novel target in autoimmune diseases. Interleukin-32 human recombinant produced in is a single, non-glycosylated, polypeptide chain containing 131 amino E.Coli acids and having a molecular mass of 14.9 kDa.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Biological Activity

Human IL-32 alpha activity is measured via the dose-dependent induction of TNF-alpha in the human THP-1 monocytic cell line.

Purity

Greater than 97.0% as determined by:
(a) Analysis by RP-HPLC.
(b) Analysis by SDS-PAGE.

Formulation

IL-32 was lyophilized from a concentrated (1mg/ml) solution in water containing 50mM sodium Phosphate buffer pH=7.5.

Reconstitution

It is recommended to reconstitute the lyophilized IL-32 in sterile 18MΩ-cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized IL32 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL32 should be stored at 4°C between 2-7 days and for

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future use below -18°C.

Please prevent freeze-thaw cycles.

Sequence

MCFPKVLSDD MKKLKARMHQ AIERFYDKMQ NAESGRGQVM SSLAEFQDFK KGMARSAKLR YYEEQHPELT PLLEKERDGL RCRGNRSPVP DVEDPATEEP GESFCDKSYG APRGDKEELT PQKCSEPQSS K.