

Recombinant Human Interleukin-18 (Human IL-18)

Product Information

Product Name	Cat#	Size
Recombinant Human Interleukin-18 (Human IL-18)	90191ES10	10 µg
	90191ES60	100 µg
	90191ES76	500 µg

Product Description

Interleukin-18 (IL-18), also known as IL-1F4, is a proinflammatory cytokine that belongs to the IL-1 superfamily and is produced by macrophages and other cells. It is expressed as a 24 kDa precursor by endothelial and epithelial cells, keratinocytes, gamma δ T cells, and phagocytes. Mature human IL-18 shares approximately 63% amino acid sequence identity with mouse and rat IL-18. IL-18 activation is induced by infection or tissue damage and leads to disease pathology in chronic inflammation. In the presence of IL-12 or IL-15, IL-18 enhances anti-viral Th1 immune responses by inducing IFN-gamma production and the cytolytic activity of CD8+ T cells and NK cells. IL-18 induces the antigen-independent production of IL-17 by gamma δ T cells and CD4+ T cells. IL-18 also promotes myeloid dendritic cell maturation and triggers neutrophil respiratory burst. In the absence of IL-12 or IL-15, IL-18 promotes production of the Th2 cytokines IL-4 and IL-13 by CD4+ T cells and basophils. IL-18 induces the antigen-independent production of IL-17 by gamma δ T cells and CD4+ T cells. IL-18 also promotes myeloid dendritic cell maturation and triggers neutrophil respiratory burst. In cancer, IL-18 has shown a variety of activities, including enhancing anti-tumor immunity, inhibiting or promoting angiogenesis, and promoting tumor cell metastasis.

Product Properties

Synonyms	IL-1F4
Accession	Q14116
GeneID	3606
Source	E.coli-derived Human IL-11, Tyr37-Asp193.
Molecular Weight	Approximately 18.2 kDa.
AA Sequence	YFGKLESKLS VIRNLNDQVL FIDQGNRPLF EDMTDSDCRD NAPRTIFIIS MYKDSQPRGM AVTISVKCEK ISTLSCENKI ISFKEMNPPD NIKDTKSDII FFQRSVPGHD NKMQFESSY EGYFLACEKE RDLFKLILKK EDELGDRSIM FTVQNED
Tag	None
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	> 95% by SDS-PAGE analyses.
Biological Activity	Test in processing.
Endotoxin	Less than 0.1 EU/µg of rHuIL-18 as determined by LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS, pH 7.0. 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!