

Background:

Interleukin-18 (IL-18) is a proinflammatory cytokine in the IL-1 family that exerts distinct immune effects depending on the local cytokine environment. It is expressed as a 24 kDa precursor by endothelial and epithelial cells, keratinocytes, $\gamma\delta$ T cells, and phagocytes. The precursor is activated intracellularly by Caspase-1 mediated proteolysis to release the 17 kDa mature cytokine. The precursor can also be released by necrotic cells for extracellular cleavage by multiple proteases. IL-18 activation is induced by infection or tissue damage and contributes to disease pathology in chronic inflammation. IL-18 binds to the widely expressed IL-18 R α which recruits IL-18 R β to form the signaling receptor complex. Its bioactivity is negatively regulated by interactions with IL-18 binding proteins and virally encoded IL-18BP homologs

Source:

Recombinant Human IL-18 is expressed from Escherichia coli. It contains AA Tyr 37 - Asp 193. Predicted molecular mass 21.0 kDa. This protein carries a polyhistidine tag at the N-terminus.

His₆ TEV IL-18 (Tyr 37 - Asp 193)

Endotoxin:

Less than 1.0 EU per μ g by the LAL method.

AA Sequence:

YFGK LESKLSVIRN LNDQVLFIDQ GNRPLFEDMT DSDCRDNAPR TIFIISMYKD SQPRGMVAVTI SVKCEKISTL SCENKIISFK
EMNPPDNIKD TKSDIIFQQR SVPGHDKMQ FESSYEGYF LACEKERDLF KLILKKEDEL GDRSIMFTVQ NED

Purity:

Purity >90% as determined by SDS-PAGE.

Formulation:

Lyophilized from 0.22 μ m filtered solution in PBS, pH7.4. Normally trehalose is added as protectant before lyophilization. Contact us for customized product form or formulation.

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.

Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

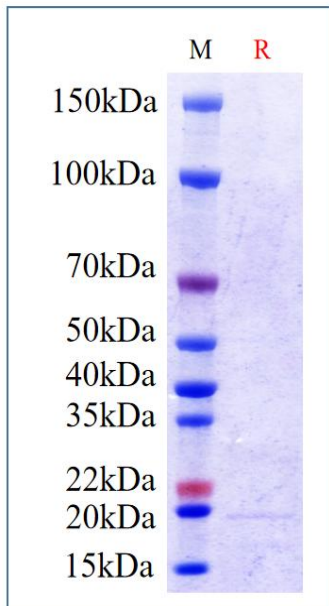
Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

-20°C to -70°C for 12 months in lyophilized state;

-70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Human IL-18, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.