Rat IL6 / Interleukin-6 Protein

Catalog Number: **80076-RNAE**

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Biological Solution Specialist

General Information

Gene Name Synonym:

IL6

Protein Construction:

A DNA sequence encoding the rat IL6 (Phe25-Thr211) was expressed and purified with an initial Met.

Source: Rat

Expression Host: E. coli

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio-Activity

Measured in a cell proliferation assay using T1165 mouse plasmacytoma cells.
The ED50 for this effect is typically 1-6 ng/ml.

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Met

Molecular Mass:

The recombinant rat IL6 consists of 188 amino acids and has a predicted molecular mass of 21.9 kDa. As a result of glycosylation, the apparent molecular mass of the recombinant protein is approximately 22 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 40% acetonitrile, 0.1% TFA

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

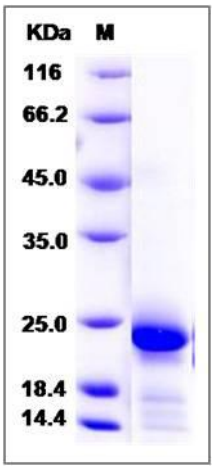
Usage Guide

Storage:

Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

Interleukin 6 (IL-6, IL6) is a potent pleiotropic cytokine that regulates cell growth and differentiation of various tissues, and is known particularly for its role in the immune response and acute phase reactions. IL-6/IL6 is a cytokine with a wide variety of biological functions and belongs to the IL-6 superfamily. IL-6/IL6 is a potent inducer of the acute phase response and plays an essential role in the final differentiation of B-cells into Ig-secreting cells Involved in lymphocyte and monocyte differentiation. IL-6/IL6 is an interleukin that acts as both a pro-inflammatory and anti-inflammatory cytokine. The role of IL-6 as an anti-inflammatory cytokine is mediated through its inhibitory effects on TNF-alpha and IL-1, and activation of IL-1Ra and IL-10. IL-6/IL6 is secreted by T cells and macrophages to stimulate immune response to trauma, especially burns or other tissue damage leading to inflammation. IL-6/IL6 is also essential for hybridoma growth and is found in many supplemental cloning media such as briclone. Inhibitors of IL-6 are used to treat postmenopausal osteoporosis. IL-6/IL6 is thought to be a reason why obese individuals have higher endogeneous levels of CRP. Intranasally administered IL-6 was shown to improve sleep-associated consolidation of emotional memories.

References

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2. Heinrich PC. et al., 1998, Biochem? J. 334: 297-314.
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4. Chung HW. et al., 2003, J Hum Genet. 48:243-8.
5. Schwantner A. et al., 2004, J Biol Chem. 279 (1): 571-6.
6. Dubi ski A. et al., 2007, Pol Merkur Lekarski. 22 (130): 291-4.