



Name	IL6 Canine
Description	Canine IL-6 Recombinant
Pricings	2µg (\$60) 10µg (\$145) 1mg (\$5200)
Shipped	Shipped with Ice Packs
Catalogue Number	CYT-1006

SYNONYMS

IL6, IL-6, Interleukin-6.

INTRODUCTION

IL-6 is a cytokine with a wide variety of biological functions: it plays an essential role in the final differentiation of b-cells into ig-secreting cells, it induces myeloma and plasmacytoma growth, it induces nerve cells differentiation, in hepatocytes it induces acute phase reactants.

DESCRIPTION

IL6 Canine Recombinant produced in Sf9 Baculovirus cells is a single, glycosylated polypeptide chain containing 195 amino acids (21-207a.a.) and having a molecular mass of 22.0kDa (Molecular size on SDS-PAGE will appear at approximately 18-28kDa).

IL6 is expressed with an 8 amino acid His-tag at C-Terminus and purified by proprietary chromatographic techniques.

SOURCE

Sf9, Baculovirus cells.

PHYSICAL APPEARANCE

Sterile Filtered colorless solution.

FORMULATION

IL6 protein solution (0.5mg/ml) contains Phosphate Buffered Saline (pH 7.4) and 10% glycerol.

STABILITY

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Avoid multiple freeze-thaw cycles.

PURITY

Greater than 95.0% as determined by SDS-PAGE.

SAFETY DATA SHEET

SDS (/Content/Images/uploaded/Safety Data Sheet/Cytokines/Interleukin/CYT-1006.pdf)

AMINO ACID SEQUENCE

FPTPGPLAGD SKDDATSNLS PLTSANKVEE LIKYILGKIS ALRKEMCDKF NKCEDSKREAL AENNLHLPKL
EGKDGCFQSG FNQETCLTRI TTGLVEFQLH LNILQNNYEG DKENVKSVHM STKILVQMLK SKVKNQDEVT
TPDPTTASL QAILQSQDEC VKHTTIHLIL RSLEDFLQFS LRAVRIMLEH HHHHH.

USAGE

ProSpec's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

BACKGROUND

Canine IL-6 Recombinant: Implications for Immunotherapy and Veterinary Medicine

Abstract:

Interleukin-6 (IL-6) plays a pivotal role in the immune response and inflammation regulation in various species, including canines. The advent of recombinant DNA technology has enabled the production of Canine IL-6 Recombinant (cIL-6r), opening new avenues for research in immunotherapy and veterinary medicine. This paper delves into the significance of cIL-6r, its production methods, and its potential applications in the treatment of inflammatory and autoimmune diseases in dogs.

Introduction:

Interleukin-6 is a multifunctional cytokine that exerts its effects on a wide range of physiological processes, including immune responses, hematopoiesis, and inflammation. In the canine immune system, IL-6 plays a crucial role in coordinating immune cell activation, antibody production, and acute phase responses. Recombinant IL-6 production has emerged as a promising strategy to harness its therapeutic potential.

Methods:

The production of cIL-6r involves recombinant DNA technology, where the canine IL-6 gene is inserted into an expression vector and transfected into a suitable host cell line, typically bacterial or mammalian cells. The recombinant protein is then purified using various chromatographic techniques to ensure high purity and biological activity.

Applications:

Canine IL-6 Recombinant holds immense promise in various applications within veterinary medicine. Its immunomodulatory properties make it a potential candidate for treating conditions such as immune-mediated diseases, inflammatory disorders, and certain types of cancer in dogs. Additionally, cIL-6r can be utilized to stimulate immune responses in vaccines, thereby enhancing their efficacy.

Challenges and Future Directions:

While cIL-6r shows great potential, its therapeutic use requires comprehensive studies to establish optimal dosages, safety profiles, and potential side effects. Long-term effects and potential interactions with existing treatments must also be explored.

Conclusion:

The advent of Canine IL-6 Recombinant marks a significant advancement in veterinary medicine, offering new avenues for immunotherapy and disease management in dogs. With further research and development, cIL-6r could become an invaluable tool in treating various conditions, ultimately enhancing the health and well-being of our canine companions.

REFERENCES

Bibliography:

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