

Recombinant Full Length Feline IL10 Protein, Tag Free

Cat. No. IL10-01F **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Feline IL-10 (Interleukin-10) is a yeast-derived cytokine supplied lyophilized without carrier protein in 10% trehalose, it contains no affinity tags, is naturally endotoxin-free, with 100% amino-acid homology to domestic cat, cheetah, Canada lynx, lion, leopard, snow leopard, fishing cat, and jaguarundi. It includes a single substitution ([Arg107His]) to remove a cleavage site.
Species	Feline
Source	Yeast
ProteinLength	1-178 aa
Description	Feline Interleukin-10 (IL-10) is a potent anti-inflammatory cytokine produced primarily by regulatory T cells (Tregs), Th2 cells, macrophages, dendritic cells, and certain B-cell subsets in cats (<i>Felis catus</i>), where it plays a central role in limiting excessive immune activation and maintaining immune homeostasis. IL-10 signals through the IL-10 receptor complex (IL-10R1/IL-10R2), activating JAK/STAT3 pathways that suppress pro-inflammatory cytokine production (including IL-1 β , TNF- α , and IL-6), inhibit antigen presentation, and downregulate Th1-type immune responses. In feline health, IL-10 is critically involved in modulating immune responses during chronic viral infections such as feline immunodeficiency virus (FIV), feline leukemia virus (FeLV), and feline infectious peritonitis (FIP), where elevated IL-10 expression can contribute to immune suppression and viral persistence. IL-10 is also associated with chronic inflammatory conditions such as gingivostomatitis and inflammatory bowel disease,

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where it may play dual roles in controlling inflammation while potentially limiting effective pathogen clearance. As both a biomarker of immune regulation and a functional mediator of anti-inflammatory pathways, feline IL-10 is important in vaccine studies, immunopathogenesis research, and therapeutic modulation of immune responses. In translational research, cats serve as valuable natural models for human retroviral infection (FIV as a model for HIV), coronavirus-associated immunopathology (FIP), and chronic inflammatory diseases, and characterization of feline IL-10 supports comparative studies of immune regulation, tolerance, and cytokine network balance relevant to both veterinary and human medicine.

Molecular Mass	18.7 kDa
AASequence	SRHQSTLSEDNCTHFSVSLPHMLRELRAAFGKVKTFQTKDELHSILLTRSLLEDFK GYLGCQALSEMIQFYLEEVMQAENEDPDIKQHVNSLGEKCLKTLRLRLRHCHRFLLPC ENKSKVVEQVKSTFSKLQEKG VYKAMGEFDIFINYIEAYMTMKMKI(160)[Arg107His]
Endotoxin	Endotoxin-free
Purity	> 98% as visualized by SDS-PAGE analysis.
Applications	Cell Culture, ELISA Standard, ELISpot Control, Western Blot Control It is commonly used to study IL-10 signaling and immune regulation, particularly anti-inflammatory responses, cytokine suppression, and regulation of innate and adaptive immunity; typical applications include cell-based assays, cytokine signaling studies, immunology research, ELISA and neutralization assays, flow cytometry and Western blot controls, and antibody development or validation.
Storage	At -20 centigrade. It is stable for up to twelve months at -20 centigrade from receipt, with working aliquots (with carrier protein) stable for ~3 months; avoid repeated freeze/thaw cycles.

Reconstitution In sterile PBS with at least 0.1% carrier protein.

GENE INFORMATION

Gene Name IL10 interleukin 10 [Felis catus (domestic cat)]

Official Symbol IL10

Synonyms IL10; interleukin 10; interleukin-10; CSIF; IL-10; cytokine synthesis inhibitory factor

Gene ID 493683

mRNA Refseq NM_001009209

Protein Refseq NP_001009209

UniProt ID P55029

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