

IL-10 Protein, Feline

Cat. No.:	HY-P73152
Synonyms:	Interleukin-10 receptor subunit beta; IL-10RB; CRF2-4; IL-10R2; CDw210b
Species:	Others
Source:	E. coli
Accession:	P55029 (S19-I178)
Gene ID:	493683
Molecular Weight:	Approximately 19 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μ m filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/ μ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μ g/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	IL-10, a major immune regulatory cytokine, exerts profound anti-inflammatory functions, limiting excessive tissue disruption caused by inflammation. Mechanistically, IL-10 binds to its heterotetrameric receptor, comprised of IL10RA and IL10RB, leading to JAK1 and STAT2-mediated phosphorylation of STAT3. Subsequently, phosphorylated STAT3 translocates to the nucleus, where it drives the expression of anti-inflammatory mediators. IL-10 specifically targets antigen-presenting cells (APCs) such as macrophages and monocytes, inhibiting their release of pro-inflammatory cytokines, including GM-CSF, G-CSF, IL-1 alpha, IL-1 beta, IL-6, IL-8, and TNF-alpha. Additionally, IL-10 interferes with antigen presentation by reducing the expression of MHC-class II and co-stimulatory molecules, thereby inhibiting their ability to induce T cell activation. Moreover, IL-10 controls the inflammatory response of macrophages by reprogramming essential metabolic pathways, including mTOR signaling. IL-10 exists as a homodimer and interacts with IL10RA and IL10RB.
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Caution: Product has not been fully validated for medical applications. For research use only.

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