

Recombinant Rat Interleukin-10 (rRtIL-10)

PrimeGene Technical Data Sheet

Catalog Number:	141-10
Source:	<i>Escherichia coli</i> .
Molecular Weight:	Approximately 18.6 kDa, a single non-glycosylated polypeptide chain containing 160 amino acids.
Quantity:	2µg/10µg/1000µg
AA Sequence:	SKGHSIRGDN NCTHFPVSQT HMLRELRAAF SQVKTFFQKK DQLDNILLTD SLLQDFKGYL GCQALSEMIK FYLVEVMPQA ENHGPEIKEH LNSLGEKLT LWIQLRRCHR FLPCENKSKA VEQVKNDFNK LQDKGVYKAM NEFDIFINCI EAYVTLKMKN
Purity:	> 97 % by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. The ED ₅₀ as determined by a cell proliferation assay using murine MC/9-2 cells is less than 1.0 ng/ml, corresponding to a specific activity of > 1.0 × 10 ⁶ IU/mg.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 µm filtered solution in 20 mM Tris-HCl, pH 8.0, 100 mM NaCl.
Endotoxin:	Less than 0.1 EU/µg of rRtIL-10 as determined by LAL method.
Reconstitution:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in 10 mM HCl 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.
Shipping:	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage:	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none">● 12 months from date of receipt, -20 to -70 °C as supplied.● 1 month, 2 to 8 °C under sterile conditions after reconstitution.● 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Usage:	This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE.

Rat Interleukin-10

Interleukin-10 (IL-10), also known as cytokine synthesis inhibitory factor (CSIF), is the charter member of the IL-10 family of α -helical cytokines that also includes IL-19, IL-20, IL-22, IL-24, and IL-26/AK155. IL-10 is secreted by many activated hematopoietic cell types as well as hepatic stellate cells, keratinocytes, and placental cytotrophoblasts. Whereas human IL-10 is active on mouse cells, mouse IL-10 does not act on human cells. Recombinant rat IL-10 is a 160 amino acid molecule that contains two intrachain disulfide bridges and is expressed as a 37 kDa noncovalently associated homodimer. The IL-10 dimer binds to two IL-10 R α /IL-10R1 chains, resulting in recruitment of two IL-10 R β /IL-10R2 chains and activation of a signaling cascade involving JAK1, TYK2, and STAT3. IL-10R β does not bind IL-10 by itself but is required for signal transduction. IL-10 is a critical molecule in the control of viral infections and allergic and autoimmune inflammation. It promotes phagocytic uptake and Th2 responses but suppresses antigen presentation and Th1 proinflammatory responses.