



Human Interleukin 10,IL-10 ELISA KIT

Product Code	CSB-E04593h
Abbreviation	IL10
Uniprot No.	P22301
Product Type	ELISA Kit
Immunogen Species	Homo sapiens (Human)
Sample Types	serum, plasma, tissue homogenates
Detection Range	31.25 pg/ml - 2000 pg/ml
Sensitivity	7.8 pg/ml
Assay Time	1-5h
Sample Volume	50-100ul
Detection Wavelength	450 nm
Lead Time	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
Research Area	Immunology
Gene Names	IL10
Tag Info	quantitative
Protein Description	Sandwich

Description

This human IL-10 ELISA kit employs the quantitative sandwich enzyme immunoassay technique to measure the levels of human IL-10 in the serum, plasma, or tissue homogenates. Antibody specific for IL-10 has been pre-coated onto the microplate. Standards and samples are pipetted into the wells and any IL-10 present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated IL-10 antibody is added to the wells. After washing, avidin conjugated HRP is added to the wells, forming an antibody-antigen-enzyme-labeled antibody complex. Following a wash to remove any unbound HRP-avidin, the TMB substrate solution is added to the wells, and the color develops into blue. The color changes from blue to yellow after the addition of stop solution into the wells. The color intensity is in proportion to the amount of IL-10 bound in the initial step.

IL-10 is a potent anti-inflammatory cytokine that protects the host from over-exuberant responses to pathogens and microbiota, thus keeping normal tissue homeostasis. IL-10 binding to the heterotetrameric IL-10R complex results in JAK1- and TYK2-mediated phosphorylation of STAT3, leading to the implementation of gene transcription programs and consequent anti-inflammatory and immunosuppressive cellular responses. Excessive IL-10 production can inhibit the pro-inflammatory response to various pathogens and contribute to pathogens escaping from immune control, leading to fulminant and



rapidly fatal or chronic non-healing infections. Deficiency of IL-10 is often initially beneficial to the host, prolonged IL-10 absence is linked to enhanced immunopathology in response to infection as well as increased risk for the development of many autoimmune diseases and inflammatory bowel disease.

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