

## Datasheet for ABIN577094 hCG ELISA Kit



[Go to Product page](#)

### Overview

Quantity: 96 tests

Target: hCG

Reactivity: Human

Method Type: Sandwich ELISA

Application: ELISA

### Product Details

Purpose: For the quantitative determination of intact human chorionic gonadotropin (hCG) concentrations in serum

Analytical Method: Quantitative

Detection Method: Colorimetric

Sensitivity: The minimal detectable concentration of HCG by this assay is estimated to be 3.0mIU/mL.

Components: Standards: 1 set/2 vials

### Target Details

Target: hCG

Alternative Name: Chorionic Gonadotropin (hCG) Intact ([hCG Products](#))

Target Type: Hormone

Background: Interleukin 4 (IL-4) was initially characterized as a B cell stimulatory factor (BSF-1) (1) and B-cell differentiation factor (BCDF) (2). It was subsequently revealed that IL-4 is a pleiotropic cytokine with multiple immune response modulating functions on diverse cell types including T cells,

## Target Details

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monocytes, macrophages, mast cells, fibroblasts, endothelial cells, osteoblasts, keratinocytes, hepatocytes and astrocytes (3-8). IL-4 is produced by CD4+ TH and TH2 cells (9,1), fetal thymocytes (11), CD8+ T cells (12), mast cells (13) and basophils (14). Human and mouse cDNAs for IL-4 encode precursor proteins containing 153 and 14 amino acid residues, respectively. The signal peptides from the precursors are cleaved to yield mature proteins of 129 amino acid residues (human) and 12 amino acid residues (mouse) (17, 18). Both human and mouse proteins have multiple potential glycosylation sites and six cysteines that are all involved in intra-molecular disulfide bridges. IL-4 exhibits approximately 25% amino acid sequence homology to IL-13 that shares a number of biological functions with IL-4 (19). The human and mouse IL-4 gene, each composed of four exons and three introns, have been localized to human chromosome 5q23-31 and mouse chromosome 11 in tandem with genes for IL-3, IL-5, IL-9, IL-13 and GM-CSF (2, 21). IL-4 is an anti-inflammatory cytokine that exhibits multiple immuno-modulation functions on a variety of cell types, including T cells, B cells, monocytes, neutrophils, hematopoietic progenitors, fibroblasts, endothelial cells, and epithelial cells (15, 16). The diverse effects exhibited by IL-4 in vitro suggest that it may play a central role in the modulation of immune and inflammatory responses in vivo. It was reported that introduction of malignant tumor cells transfected with the gene for IL-4 and producing IL-4 in athymic mice can block tumor formation by other transplantable tumor lines in vivo. Since the anti-tumor activity of IL-4 is evident in these athymic mice, IL-4-mediated host-defense responses other than T cell immunity must be involved (22). It was reported that IL-4 is important for protective immunity in parasitic nematode-infected mice, since IL-4 or IL-4R antibodies can block the polyclonal IgE response and abrogate protective immunity to the infection (23). In contrast to results obtained with the nematode-infected mice, endogenous IL-4 was reported to inhibit protective immunity in mice infected with the protozoan *Leishmania major* (24, 25). Clearly, much more work is required to unravel the complex network of IL-4-dependent processes in order to utilize IL-4 successfully in immunotherapy (16). This IL-4 ELISA is a 4.5 hour solid phase immunoassay readily applicable to measure IL-4 levels in serum, plasma, cell culture supernatant, and other biological fluids in the range of to 1 pg/mL. It showed no cross reactivity with other cytokines tested. This IL-4 ELISA is expected to be effectively used for further investigations into the relationship between IL-4 and the various conditions mentioned

## Application Details

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Plate: Pre-coated

Restrictions: For Research Use only

## Handling

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Preservative: Without preservative