

Human IL-15 ELISA Kit ab100554

★★★★★ 1 Abreviews 4 References 2 Images

Overview

Product name	Human IL-15 ELISA Kit
Detection method	Colorimetric
Sample type	Cell culture supernatant, Serum, Plasma
Assay type	Sandwich (quantitative)
Sensitivity	< 3 pg/ml
Range	3.3 pg/ml - 800 pg/ml
Recovery	94 %

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	96.37	83% - 104%
Serum	92.26	80% - 102%
Plasma	94.53	82% - 103%

Assay duration Multiple steps standard assay

Species reactivity **Reacts with:** Human

Product overview Abcam's IL-15 Human ELISA (Enzyme-Linked Immunosorbent Assay) kit is an *in vitro* enzyme-linked immunosorbent assay for the quantitative measurement of Human IL-15 in serum, plasma and cell culture supernatants.

This assay employs an antibody specific for Human IL-15 coated on a 96-well plate. Standards and samples are pipetted into the wells and IL-15 present in a sample is bound to the wells by the immobilized antibody. The wells are washed and biotinylated anti-Human IL-15 antibody is added. After washing away unbound biotinylated antibody, HRP-conjugated streptavidin is pipetted to the wells. The wells are again washed, a TMB substrate solution is added to the wells and color develops in proportion to the amount of IL-15 bound. The Stop Solution changes the color from blue to yellow, and the intensity of the color is measured at 450 nm.

Notes Optimization may be required with urine samples

Platform

Microplate

Properties**Storage instructions**

Store at -20°C. Please refer to protocols.

Components	1 x 96 tests
200X HRP-Streptavidin Concentrate	1 x 200µl
20X Wash Buffer	1 x 25ml
5X Assay Diluent B	1 x 15ml
Assay Diluent A	1 x 30ml
Biotinylated anti-Human IL-15	2 vials
IL-15 Microplate (12 x 8 wells)	1 unit
Recombinant Human IL-15 Standard (lyophilized)	2 vials
Stop Solution	1 x 8ml
TMB One-Step Substrate Reagent	1 x 12ml

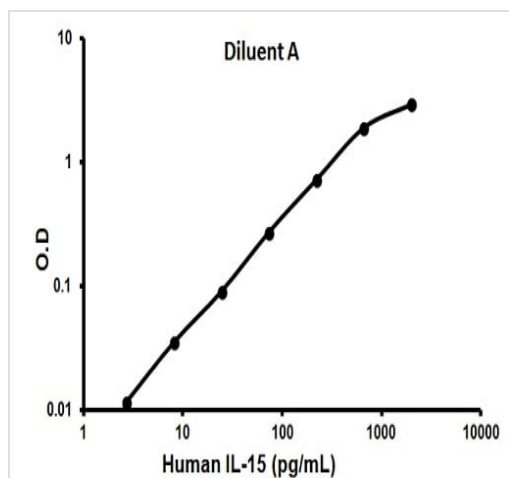
Relevance

IL-15 (114 amino acids) is a cytokine that regulates T and natural killer cell activation and proliferation. It has a predicted molecular mass of approximately 12.5 kDa. Human IL-15 shares approximately 97% and 73% amino acid sequence identity with simian and mouse IL-15, respectively. Both human and simian IL-15 are active on mouse cells. IL-15 was initially isolated from the simian kidney epithelial cell line CV1/EBNA. It has also been isolated from mouse and human cell sources. The cytokines IL-15 and IL-2 share many biological properties and stimulatory activities (T, B, and NK cells). Both IL-15 and IL-2 stimulate mouse CTLL2 cells. In activated peripheral blood T lymphocytes, IL-2 is highly expressed but the expression of IL-15 is not detectable. There is no sequence homology between IL-15 and IL-2, though computer modeling indicates both possess a four alpha helical bundle structure. IL-15 competes for binding sites with IL-2, as both IL-2 and IL-15 stimulate the growth of cells through the IL-2 receptor. IL-15 mRNA is expressed in many cell types and tissues including adherent peripheral blood mononuclear cells, fibroblasts, and epithelial cells, monocytes, placenta, and skeletal muscle.

Cellular localization

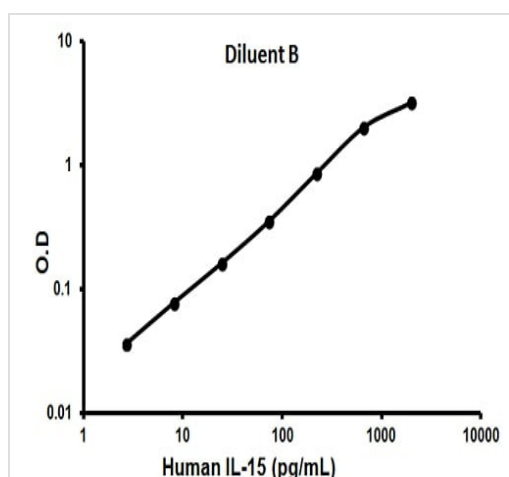
Isoform IL-15-S48AA: Secreted. Isoform IL-15-S21AA: Cytoplasm. Nucleus. Note: IL-15-S21AA is not secreted, but rather is stored intracellularly, appearing in the nucleus and cytoplasmic components.

Images



Representative standard curve using ab100554

Typical standard curve



Representative standard curve using ab100554

Typical standard curve

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