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

<table>
<thead>
<tr>
<th>Sample type</th>
<th>Average %</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cell culture supernatant</td>
<td>96.37</td>
<td>83% - 104%</td>
</tr>
<tr>
<td>Serum</td>
<td>92.26</td>
<td>80% - 102%</td>
</tr>
<tr>
<td>Plasma</td>
<td>94.53</td>
<td>82% - 103%</td>
</tr>
</tbody>
</table>

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.

Get results in 90 minutes with Human IL-15 ELISA Kit (ab176110) from our SimpleStep ELISA® range.
Notes
Optimization may be required with urine samples

Platform
Microplate

Properties

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

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

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 IL2 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 IL2 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

Images
Representative standard curve using ab100554

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