**Overview**

**Product name**  Human Angiopoietin 2 ELISA Kit (ANG2)

**Detection method**  Colorimetric

**Sample type**  Cell culture supernatant, Serum, Plasma

**Assay type**  Sandwich (quantitative)

**Sensitivity**  < 10 pg/ml

**Range**  4.12 pg/ml - 3000 pg/ml

**Recovery**  88%

<table>
<thead>
<tr>
<th>Sample type</th>
<th>Average %</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cell culture supernatant</td>
<td>82.1</td>
<td>76% - 92%</td>
</tr>
<tr>
<td>Serum</td>
<td>85.3</td>
<td>82% - 109%</td>
</tr>
<tr>
<td>Plasma</td>
<td>96.9</td>
<td>95% - 116%</td>
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</tbody>
</table>

**Assay duration**  Multiple steps standard assay

**Species reactivity**  Reacts with: Human

**Product overview**  Abcam’s Angiopoietin 2 (ANG2) Human ELISA (Enzyme-Linked Immunosorbent Assay) kit is an in vitro enzyme-linked immunosorbent assay for the quantitative measurement of Human Angiopoietin 2 in serum, plasma, and cell culture supernates.

This assay employs an antibody specific for Human Angiopoietin 2 coated on a 96-well plate. Standards and samples are pipetted into the wells and Angiopoietin 2 present in a sample is bound to the wells by the immobilized antibody. The wells are washed and biotinylated anti-Human Angiopoietin 2 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 Angiopoietin 2 bound. The Stop Solution changes the color from blue to yellow, and the intensity of the color is measured at 450 nm.

**Notes**  Optimisation may be required with urine samples.

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

Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>200X HRP-Streptavidin Concentrate</td>
<td>1 x 200µl</td>
</tr>
<tr>
<td>20X Wash Buffer Concentrate</td>
<td>1 x 25ml</td>
</tr>
<tr>
<td>5X Assay Diluent</td>
<td>1 x 15ml</td>
</tr>
<tr>
<td>Angiopoietin 2 Microplate (12 x 8 well strip)</td>
<td>1 unit</td>
</tr>
<tr>
<td>Biotinylated anti-Human Angiopoietin 2 (lyophilized)</td>
<td>2 vials</td>
</tr>
<tr>
<td>Recombinant Angiopoietin 2 Standard Human (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>

Function
Binds to TEK/TIE2, competing for the ANGPT1 binding site, and modulating ANGPT1 signaling. Can induce tyrosine phosphorylation of TEK/TIE2 in the absence of ANGPT1. In the absence of angiogenic inducers, such as VEGF, ANGPT2-mediated loosening of cell-matrix contacts may induce endothelial cell apoptosis with consequent vascular regression. In concert with VEGF, it may facilitate endothelial cell migration and proliferation, thus serving as a permissive angiogenic signal.

Sequence similarities
Contains 1 fibrinogen C-terminal domain.

Domain
The Fibrinogen C-terminal domain mediates interaction with the TEK/TIE2 receptor.

Cellular localization
Secreted.

Images
Representative Standard Curve using ab99971.

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