**Product datasheet**

**Human TFF3 ELISA Kit ab233617**

*SimpleStep ELISA®*

**6 Images**

### Overview

**Product name**
Human TFF3 ELISA Kit

**Detection method**
Colorimetric

**Precision**

<table>
<thead>
<tr>
<th>Sample</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>CV%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serum</td>
<td>5</td>
<td></td>
<td></td>
<td>3.6%</td>
</tr>
</tbody>
</table>

**Intra-assay**

<table>
<thead>
<tr>
<th>Sample</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>CV%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serum</td>
<td>3</td>
<td></td>
<td></td>
<td>1.2%</td>
</tr>
</tbody>
</table>

**Inter-assay**

**Sample type**
Cell culture supernatant, Saliva, Urine, Serum, Heparin Plasma, EDTA Plasma, Citrate Plasma

**Assay type**
Sandwich (quantitative)

**Sensitivity**
1.3 pg/ml

**Range**
3.1 pg/ml - 200 pg/ml

**Recovery**

<table>
<thead>
<tr>
<th>Sample type</th>
<th>Average %</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cell culture supernatant</td>
<td>110</td>
<td>100% - 120%</td>
</tr>
<tr>
<td>Saliva</td>
<td>105</td>
<td>95% - 110%</td>
</tr>
<tr>
<td>Urine</td>
<td>106</td>
<td>99% - 111%</td>
</tr>
<tr>
<td>Serum</td>
<td>106</td>
<td>103% - 109%</td>
</tr>
<tr>
<td>Heparin Plasma</td>
<td>106</td>
<td>101% - 112%</td>
</tr>
<tr>
<td>EDTA Plasma</td>
<td>111</td>
<td>102% - 122%</td>
</tr>
</tbody>
</table>
**Sample type** | **Average %** | **Range**
--- | --- | ---
Citrate Plasma | 102 | 100% - 107%

**Assay time** | 1h 30m
**Assay duration** | One step assay
**Species reactivity** | Reacts with: Human

**Product overview**

TFF3 in vitro SimpleStep ELISA® (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of TFF3 protein in human serum, plasma, saliva, urine, and cell culture supernatant samples.

The SimpleStep ELISA® employs an affinity tag labeled capture antibody and a reporter conjugated detector antibody which immunocapture the sample analyte in solution. This entire complex (capture antibody/analyte/detector antibody) is in turn immobilized via immunoaffinity of an anti-tag antibody coating the well. To perform the assay, samples or standards are added to the wells, followed by the antibody mix. After incubation, the wells are washed to remove unbound material. TMB substrate is added and during incubation is catalyzed by HRP, generating blue coloration. This reaction is then stopped by addition of Stop Solution completing any color change from blue to yellow. Signal is generated proportionally to the amount of bound analyte and the intensity is measured at 450 nm. Optionally, instead of the endpoint reading, development of TMB can be recorded kinetically at 600 nm.

TFF3 (Trefoil Factor 3) is a 7 kDa peptide involved in intestinal mucosa repair and maintenance. It is expressed by epithelial goblet cells in a variety of organs and is involved in epithelial wound healing. TFF3 expression is altered in cancer; it is down regulated in the the early stages of colon adenocarcinoma but upregulated in the serum of patients with advanced prostate cancer and in breast and prostate cancers.

**Tested applications**

Suitable for: Sandwich ELISA

**Platform**

Pre-coated microplate (12 x 8 well strips)

**Properties**

**Storage instructions**

Store at +4°C. Please refer to protocols.

**Components**

<table>
<thead>
<tr>
<th>Components</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>10X Wash Buffer PT (ab206977)</td>
<td>1 x 20ml</td>
</tr>
<tr>
<td>Antibody Diluent 4BI</td>
<td>1 x 6ml</td>
</tr>
</tbody>
</table>
Function
Involved in the maintenance and repair of the intestinal mucosa. Promotes the mobility of epithelial cells in healing processes (motogen).

Tissue specificity
Expressed in goblet cells of the intestines and colon (at protein level). Expressed by goblet cells of small and large intestinal epithelia and also by the uterus.

Sequence similarities
Contains 1 P-type (trefoil) domain.

Cellular localization
Secreted > extracellular space > extracellular matrix > apical lamina.

Applications
Our Abpromise guarantee covers the use of ab233617 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sandwich ELISA</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
</tr>
</tbody>
</table>

Images

ELISA Protocol Summary

Other - Human TFF3 ELISA Kit (ab233617)
Standard curve comparison between Human TFF3 SimpleStep ELISA® kit and traditional ELISA kit from leading competitor. SimpleStep ELISA kit shows increased sensitivity.

The TFF3 standard curve was prepared as described in Section 10.

The concentrations of TFF3 were measured in duplicates, interpolated from the TFF3 standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 2.5%, plasma (citrate) 2.5%, plasma (heparin) 2.5%, and plasma (EDTA) 2.5%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Trefoil Factor 3 concentration was determined to be 5.4 ng/mL in serum, 3.5 ng/mL in plasma (citrate), 5.9 ng/ml in plasma (heparin), and 7.1 ng/ml in plasma (EDTA).
The concentrations of TFF3 were measured in duplicates, interpolated from the TFF3 standard curves and corrected for sample dilution. Undiluted samples are as follows: saliva 1: 4,000, urine 1: 800, and HT-29 supernatant 8%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Trefoil Factor 3 concentration was determined to be 412.4 ng/ml in saliva, 136.9 ng/ml in urine, and 1.6 ng/mL in HT-29 supernatant.

Serum from ten individual healthy human male donors was measured in duplicate. Interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean TFF3 concentration was determined to be 7.4 ng/mL with a range of 4.8 – 13.1 ng/mL.

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