**Product name**
Human beta 2 Microglobulin ELISA Kit (B2M) ab99977

**Detection method**
Colorimetric

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

**Assay type**
Sandwich (quantitative)

**Sensitivity**
< 6 pg/ml

**Range**
15.6 pg/ml - 1000 pg/ml

**Recovery**
< 100 %

**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>104.6</td>
<td>93% - 118%</td>
</tr>
<tr>
<td>Serum</td>
<td>94.28</td>
<td>80% - 103%</td>
</tr>
<tr>
<td>Plasma</td>
<td>95.78</td>
<td>81% - 105%</td>
</tr>
</tbody>
</table>

**Assay duration**
Multiple steps standard assay

**Species reactivity**
Reacts with: Human

**Product overview**
Abcam’s beta 2 Microglobulin (B2M) Human ELISA (Enzyme-Linked Immunosorbent Assay) kit is an in vitro enzyme-linked immunosorbent assay for the quantitative measurement of Human beta 2 Microglobulin in serum, plasma and cell culture supernatants.

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

Get higher sensitivity in only 90 minutes with Human Beta-2-Microglobulin ELISA Kit (ab181423)
from our SimpleStep ELISA® range.

Notes
Optimisation 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>20X Wash Buffer Concentrate</td>
<td>1 x 25ml</td>
</tr>
<tr>
<td>300X HRP-Streptavidin Concentrate</td>
<td>1 x 200µl</td>
</tr>
<tr>
<td>5X Assay Diluent B</td>
<td>1 x 15ml</td>
</tr>
<tr>
<td>Assay Diluent A</td>
<td>2 x 30ml</td>
</tr>
<tr>
<td>beta 2 Microglobulin Microplate (12 x 8 wells)</td>
<td>1 unit</td>
</tr>
<tr>
<td>Biotinylated anti-Human beta 2 Microglobulin (lyophilized)</td>
<td>2 vials</td>
</tr>
<tr>
<td>Recombinant Human beta 2 Microglobulin 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>

Function
Component of the class I major histocompatibility complex (MHC). Involved in the presentation of peptide antigens to the immune system.

Involvement in disease
Defects in B2M are the cause of hypercatabolic hypoproteinemia (HYCATHYP) [MIM:241600]. Affected individuals show marked reduction in serum concentrations of immunoglobulin and albumin, probably due to rapid degradation.

Note=Beta-2-microglobulin may adopt the fibrillar configuration of amyloid in certain pathologic states. The capacity to assemble into amyloid fibrils is concentration dependent. Persistently high beta(2)-microglobulin serum levels lead to amyloidosis in patients on long-term hemodialysis.

Sequence similarities
Belongs to the beta-2-microglobulin family.
Contains 1 Ig-like C1-type (immunoglobulin-like) domain.

Post-translational modifications
Glycation of Ile-21 is observed in long-term hemodialysis patients.

Cellular localization
Secreted. Detected in serum and urine.

Images
Sandwich ELISA - hu B2M ELISA Kit (ab99977)

huB2M measured in biofluids showing quantity (pg) per mL of tested sample

Representative Standard Curve using ab99977.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
• We provide support in Chinese, English, French, German, Japanese and Spanish
• Extensive multi-media technical resources to help you
• We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit https://www.abcam.com/abpromise or contact our technical team.

Terms and conditions

• Guarantee only valid for products bought direct from Abcam or one of our authorized distributors