


Product datasheet

Anti-beta 2 Microglobulin antibody ab87483

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Overview

<b>Product name</b>	Anti-beta 2 Microglobulin antibody
<b>Description</b>	Rabbit polyclonal to beta 2 Microglobulin
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P, ICC/IF, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Recombinant fragment <b>Predicted to work with:</b> Human, Chimpanzee, Macaque monkey, Gorilla, Orangutan 
<b>Immunogen</b>	Synthetic peptide conjugated to KLH derived from within residues 50 to the C-terminus of Mouse beta 2 Microglobulin. Read Abcam's proprietary immunogen policy
<b>Positive control</b>	This antibody gave a positive signal in Beta 2 Microglobulin Recombinant protein as well as the following Mouse tissue lysates: Spleen; Thymus; Bone Marrow; Lung. This antibody gave a positive result in IF in the following Formaldehyde fixed cell line: MEF1 IHC-P: FFPE mouse spleen tissue sections

Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS Note: Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab87483** in the following tested applications.

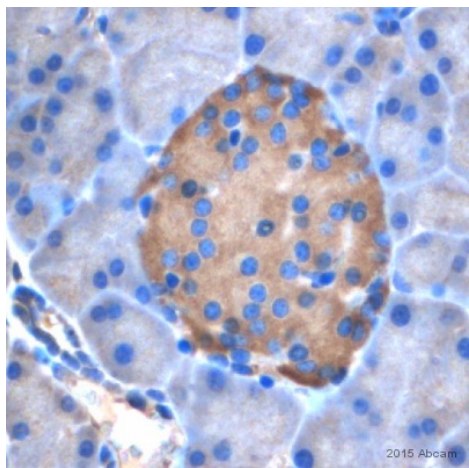
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P	★★★★★	Use a concentration of 5 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF		Use a concentration of 5 µg/ml.
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 13 kDa (predicted molecular weight: 13 kDa).

## Target

<b>Function</b>	Component of the class I major histocompatibility complex (MHC). Involved in the presentation of peptide antigens to the immune system.
<b>Involvement in disease</b>	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.
<b>Sequence similarities</b>	Belongs to the beta-2-microglobulin family. Contains 1 Ig-like C1-type (immunoglobulin-like) domain.
<b>Post-translational modifications</b>	Glycation of Ile-21 is observed in long-term hemodialysis patients.
<b>Cellular localization</b>	Secreted. Detected in serum and urine.

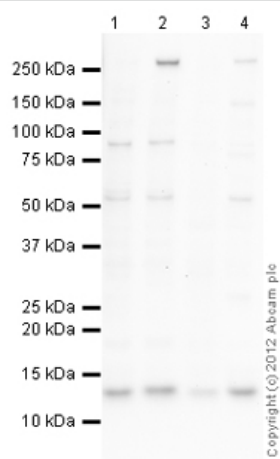
## Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-beta 2 Microglobulin antibody (ab87483)

Image is courtesy of an anonymous AbReview.

Immunohistochemical analysis of formaldehyde-fixed paraffin-embedded murine pancreatic tissue sections, labelling beta 2 microglobulin antibody with ab87483 at a dilution of 1/80 incubated for 16 hours at 4°C in 5% BSA diluent. Heat mediated antigen retrieval was with 10mM sodium citrate at pH 6.0. Blocking was with 5% serum incubated for 30 minutes at 20°C. Secondary was a biotinylated goat anti-rabbit polyclonal biotin conjugate at 1/200.



Western blot - Anti-beta 2 Microglobulin antibody (ab87483)

**All lanes :** Anti-beta 2 Microglobulin antibody (ab87483) at 1 µg

**Lane 1 :** Spleen (Mouse) Tissue Lysate

**Lane 2 :** Thymus (Mouse) Tissue Lysate

**Lane 3 :** Mouse Bone Marrow Tissue Lysate

**Lane 4 :** Mouse lung normal tissue lysate - total protein (ab29297)

Lysates/proteins at 10 µg per lane.

**Secondary**

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (ab97080) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 13 kDa

**Observed band size:** 13 kDa

**Additional bands at:** 285 kDa, 52 kDa, 92 kDa. We are unsure as to the identity of these extra bands.

**Exposure time:** 16 minutes



Western blot - Anti-beta 2 Microglobulin antibody (ab87483)

Anti-beta 2 Microglobulin antibody (ab87483)  
at 1 µg/ml + Beta 2 Microglobulin  
Recombinant Protein at 0.1 µg

**Secondary**

Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (ab97080) at 1/5000 dilution

Developed using the ECL technique.

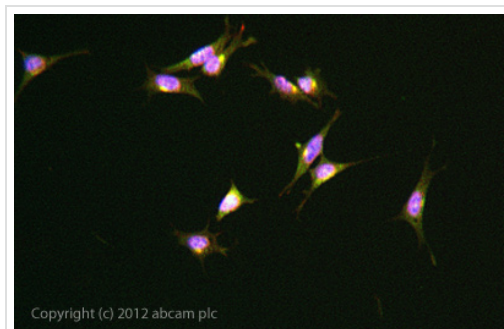
Performed under reducing conditions.

**Predicted band size:** 13 kDa

**Observed band size:** 12 kDa

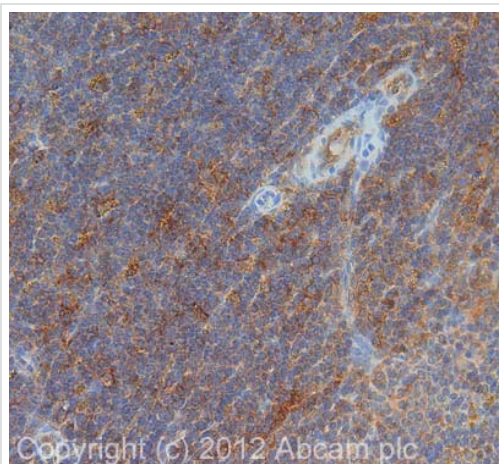
**Additional bands at:** 23 kDa. We are unsure as to the identity of these extra bands.

**Exposure time:** 1 minute



Immunocytochemistry/ Immunofluorescence - Anti-beta 2 Microglobulin antibody (ab87483)

ab87483 stained MEF1 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab87483 at 5µg/ml overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti- rabbit (ab96899) IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-beta 2 Microglobulin antibody (ab87483)

IHC image of ab87483 staining in mouse spleen formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol B. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab87483, 5µg/ml, for 15 mins at room temperature. A goat anti-rabbit biotinylated secondary antibody was used to detect the primary, and visualized using an HRP conjugated ABC system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

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