Product datasheet

Anti-beta 2 Microglobulin antibody [B2M-01] ab759

Overview

Product name: Anti-beta 2 Microglobulin antibody [B2M-01]
Description: Mouse monoclonal [B2M-01] to beta 2 Microglobulin
Host species: Mouse
Specificity: This antibody reacts with beta-2-microglobulin, associated with cell-surface MHC Class I molecules and other membrane antigens as well as with soluble forms of beta-2-microglobulin. The antibody detected beta-2-microglobulin in U-937 and RAJI cell lines in WB in non reducing conditions however failed to detect a band in JEG-3 and A431 cell lysates. All lysates gave a signal in direct ELISA.

Tested applications: Suitable for: ELISA, Flow Cyt, IP, RIA, WB
Species reactivity: Reacts with: Human
Does not react with: Mouse, Rabbit, Chicken, Cow, Dog, Pig
Immunogen: Full length native protein (purified) (Human).
Positive control: U-937 and RAJI cell lysates

Properties

Form: Liquid
Storage instructions: 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.
Storage buffer: pH: 7.40
Preservative: 0.097% Sodium azide
Constituent: PBS
Purity: >95% by SDS-PAGE
Clonality: Monoclonal
Clone number: B2M-01
Isotype: IgG2a

Applications

Our Abpromise guarantee covers the use of ab759 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>ELISA</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
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<tr>
<td>Flow Cyt</td>
<td></td>
<td>Use at an assay dependent concentration. ab170191 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.</td>
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<tr>
<td>IP</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
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<tr>
<td>RIA</td>
<td></td>
<td>Use at an assay dependent concentration. Dissociation constant of the antibody-soluble b2-microglobulin is $1.5 \times 10^{-8}$ mol/l as determined by competitive RIA.</td>
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<tr>
<td>WB</td>
<td></td>
<td>Use a concentration of 2 µg/ml. Use under non reducing condition. Detects a band of approximately 13 kDa (predicted molecular weight: 13 kDa). Use under non reducing conditions. Incubate overnight. Block with 5% milk for 2hrs.</td>
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</tbody>
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**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**
All lanes: Anti-beta 2 Microglobulin antibody [B2M-01] (ab759) at 2 µg/ml

Lane 1: JEG-3 cell lysate
Lane 2: A-431 cell lysate
Lane 3: U-937 cell lysate
Lane 4: Raji cell lysate

Developed using the ECL technique.

Performed under non-reducing conditions.

Predicted band size: 13 kDa

Lysates were separated on 15% SDS–PAGE gel and electrotransferred to a PVDF membrane. The membrane was blocked in PBS/Tween buffer containing 5% non fat dry milk for 2 hours and probed with ab759 at 4°C overnight.

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