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

Preservative: 15mM Sodium Azide
Constituents: PBS, pH 7.4

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.
### 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.

### Application | Abreviews | Notes
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ELISA | Use at an assay dependent concentration. |
Flow Cyt | Use at an assay dependent concentration. |
  *ab170191* - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody. |
IP | Use at an assay dependent concentration. |
RIA | Use at an assay dependent concentration. Dissociation constant of the antibody-soluble b2-microglobulin is 1.5 x 10^-8 mol/l as determined by competitive RIA. |
WB | 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 2 hrs. |

### Images
**Western blot - Anti-beta 2 Microglobulin antibody**

[B2M-01] (ab759) at 2 µg/ml

**All lanes:** Anti-beta 2 Microglobulin antibody

**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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