abcam

Product datasheet

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

1 Abreviews 11 References 3 Images

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:** WB, Flow Cyt
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
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

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	Proprietary Purification
Purification notes	Purified by precipitation methods. Purity >95% by SDS-PAGE.

Clonality	Monoclonal
Clone number	B2M-01
Isotype	IgG2a

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab759 in the following tested applications.

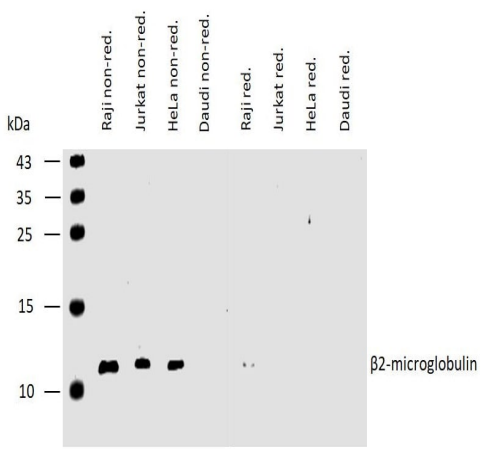
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
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 2hrs.
Flow Cyt		Use a concentration of 0.5 - 4 µg/ml.

Target

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



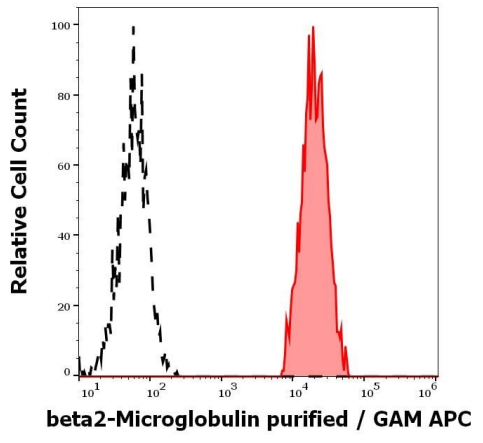
Western blot - Anti-beta 2 Microglobulin antibody [B2M-01] (ab759)

All lanes : Anti-beta 2 Microglobulin antibody [B2M-01] (ab759) at 2 µg/ml

Lane 1 : Raji cell lysate under non-reducing condition
Lane 2 : Jurkat cell lysate under non-reducing condition
Lane 3 : HeLa cell lysate under non-reducing condition
Lane 4 : Daudi cell lysate under non-reducing condition
Lane 5 : Raji cell lysate under reducing condition
Lane 6 : Jurkat cell lysate under reducing condition
Lane 7 : HeLa cell lysate under reducing condition
Lane 8 : Daudi cell lysate under reducing condition

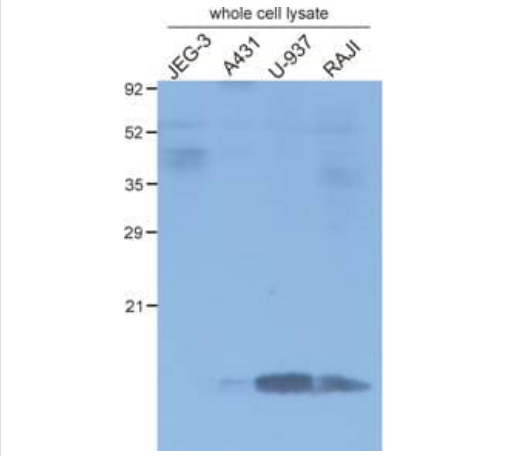
Secondary
All lanes : IRDye800-conjugated anti-mouse secondary antibody

Predicted band size: 13 kDa
Observed band size: 12 kDa



Flow Cytometry - Anti-beta 2 Microglobulin antibody [B2M-01] (ab759)

Flow cytometric analysis of Human Peripheral Blood cells labelling beta 2 Microglobulin with ab759 at 0.3 ug/ml showing separation of human monocytes (red-filled) from human beta2-Microglobulin negative blood debris (black-dashed).



Western blot - Anti-beta 2 Microglobulin antibody [B2M-01] (ab759)

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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