

Anti-beta 2 Microglobulin antibody [EPR21752-214] - BSA and Azide free ab237032

KO 評価済 リコンビナント RabMAb

画像数 8

製品の概要

製品名	Anti-beta 2 Microglobulin antibody [EPR21752-214] - BSA and Azide free
製品の詳細	Rabbit monoclonal [EPR21752-214] to beta 2 Microglobulin - BSA and Azide free
由来種	Rabbit
アプリケーション	適用あり: WB, IHC-P, IP, Flow Cyt (Intra)
種交差性	交差種: Mouse, Rat, Human
免疫原	Full length native protein (purified). This information is proprietary to Abcam and/or its suppliers.
ポジティブ・コントロール	WB: HeLa and HepG2 cell lysates. Flow Cyt (intra): HepG2 and HeLa cells. IP: HeLa cell lysate. IHC-P: Human spleen and kidney tissue.
特記事項	<p>ab237032 is the carrier-free version of ab218230.</p> <p>Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</p> <p>Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar[®] Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar[®] is a trademark of Fluidigm Canada Inc.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C. Do Not Freeze.
バッファー	pH: 7.2 Constituent: PBS
キャリア・フリー	はい
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	EPR21752-214
アイソタイプ	IgG

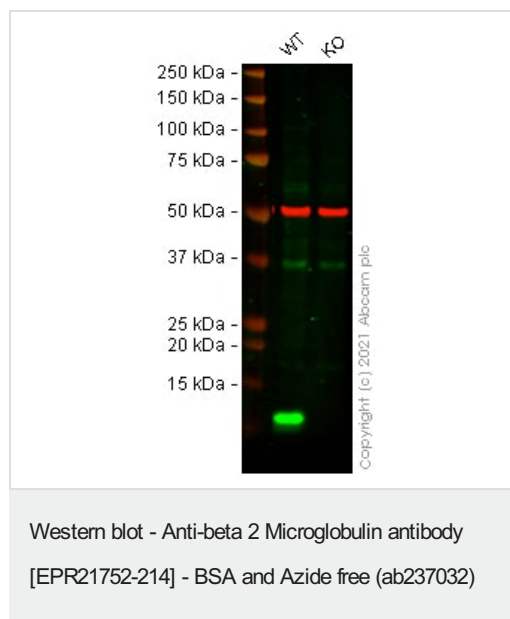
アプリケーション

The Abpromise guarantee **Abpromise保証は、**次のテスト済みアプリケーションにおけるab237032の使用に適用されます
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
WB		Use at an assay dependent concentration. Detects a band of approximately 12 kDa (predicted molecular weight: 14 kDa).
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IP		Use at an assay dependent concentration.
Flow Cyt (Intra)		Use at an assay dependent concentration.

ターゲット情報

機能	Component of the class I major histocompatibility complex (MHC). Involved in the presentation of peptide antigens to the immune system.
関連疾患	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.
配列類似性	Belongs to the beta-2-microglobulin family. Contains 1 Ig-like C1-type (immunoglobulin-like) domain.
翻訳後修飾	Glycation of Ile-21 is observed in long-term hemodialysis patients.
細胞内局在	Secreted. Detected in serum and urine.



All lanes : Anti-beta 2 Microglobulin antibody [EPR21752-214] ([ab218230](#)) at 1/1000 dilution

Lane 1 : Wild-type HEK-293T cell lysate

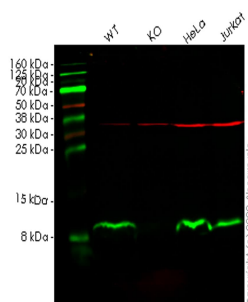
Lane 2 : B2M knockout HEK-293T cell lysate

Performed under reducing conditions.

Predicted band size: 14 kDa

Observed band size: 12 kDa

False colour image of Western blot: Anti-beta 2 Microglobulin antibody [EPR21752-214] staining at 1/1000 dilution, shown in green; Mouse anti-Alpha Tubulin [DM1A] ([ab7291](#)) loading control staining at 1/20000 dilution, shown in red. In Western blot, [ab218230](#) was shown to bind specifically to beta 2 Microglobulin. A band was observed at 12 kDa in wild-type HEK-293T cell lysates with no signal observed at this size in B2M knockout cell line [ab266828](#) (knockout cell lysate [ab256845](#)). To generate this image, wild-type and B2M knockout HEK-293T cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in fluorescent western blot (TBS-based) blocking solution before incubation with primary antibodies overnight at 4°C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ([ab216776](#)) at 1/20000 dilution.



Western blot - Anti-beta 2 Microglobulin antibody [EPR21752-214] - BSA and Azide free (ab237032)

All lanes : Anti-beta 2 Microglobulin antibody [EPR21752-214] ([ab218230](#)) at 1/500 dilution

Lane 1 : Wild-type HepG2 cell lysate

Lane 2 : B2M knockout HepG2 cell lysate

Lane 3 : HeLa cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed ([ab216773](#)) at 1/10000 dilution

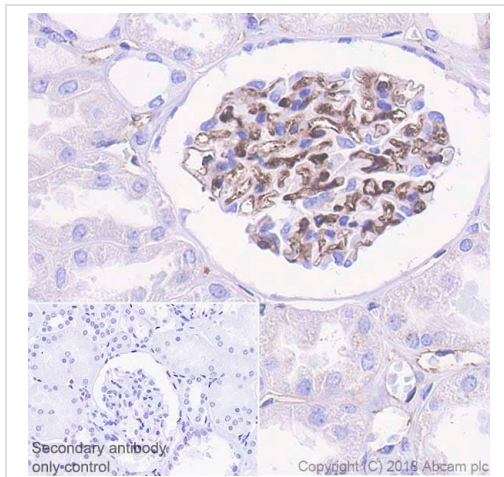
Predicted band size: 14 kDa

Observed band size: 14 kDa

This data was developed using the same antibody clone in a different buffer formulation ([ab218230](#)).

Lanes 1-4: Merged signal (red and green). Green - [ab218230](#) observed at 14 kDa. Red - loading control [ab8245](#) observed at 36 kDa.

[ab218230](#) Anti-beta 2 Microglobulin antibody [EPR21752-214] was shown to specifically react with beta 2 Microglobulin in wild-type HepG2 cells. Loss of signal was observed when knockout cell line [ab262325](#) (knockout cell lysate [ab256846](#)) was used. Wild-type and beta 2 Microglobulin knockout samples were subjected to SDS-PAGE. [ab218230](#) and Anti-GAPDH antibody [6C5] - Loading Control ([ab8245](#)) were incubated overnight at 4°C at 1 in 500 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed ([ab216776](#)) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.

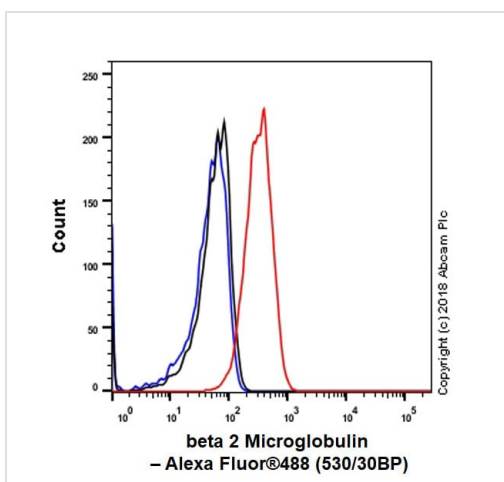


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-beta 2 Microglobulin antibody [EPR21752-214] - BSA and Azide free (ab237032)

Immunohistochemical analysis of paraffin-embedded human kidney tissue labeling beta 2 Microglobulin with **ab218230** at 1/4000 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP) secondary antibody. Positive staining on endothelial cells of human kidney is observed. Counter stained with Hematoxylin. Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab218230**).

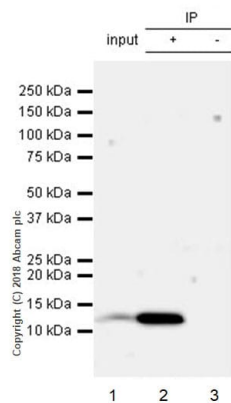
Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-beta 2 Microglobulin antibody [EPR21752-214] - BSA and Azide free (ab237032)

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol permeabilized HepG2 (human liver hepatocellular carcinoma cell line) cell line labeling beta 2 Microglobulin with **ab218230** at 1/500 dilution (red) compared with a Rabbit monoclonal IgG - Isotype control (**ab172730**) (black) and an unlabeled control cells incubated with secondary antibody only (blue). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**), at 1/2000 dilution was used as the secondary antibody.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab218230**).



Immunoprecipitation - Anti-beta 2 Microglobulin antibody [EPR21752-214] - BSA and Azide free (ab237032)

Beta 2 Microglobulin was immunoprecipitated from 0.35 mg HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate with **ab218230** at 1/30 dilution. Western blot was performed from the immunoprecipitate using **ab218230** at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/5000 dilution.

Lane 1: HeLa whole cell lysate 10 µg (Input).

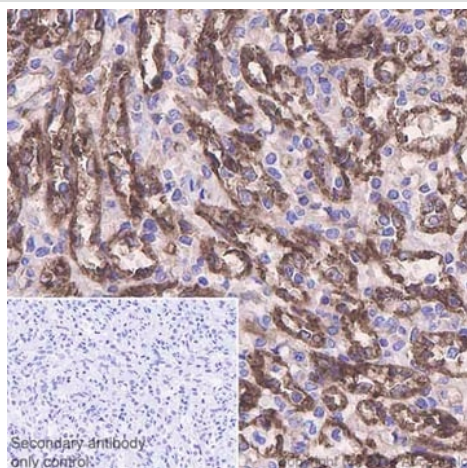
Lane 2: **ab218230** IP in HeLa whole cell lysate (+).

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of **ab218230** in HeLa whole cell lysate (-).

Blocking/Dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 minutes.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab218230**).



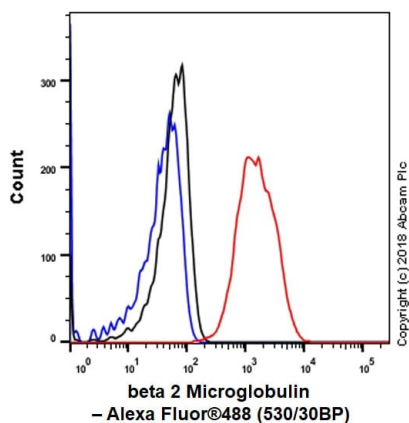
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-beta 2 Microglobulin antibody [EPR21752-214] - BSA and Azide free (ab237032)

Immunohistochemical analysis of paraffin-embedded human spleen tissue labeling beta 2 Microglobulin with **ab218230** at 1/4000 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP) secondary antibody. Positive staining on endothelial cells of human spleen is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab218230**).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-beta 2 Microglobulin antibody [EPR21752-214] - BSA and Azide free (ab237032)

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol permeabilized HeLa (human epithelial cell line from cervix adenocarcinoma) cell line labeling beta 2 Microglobulin with **ab218230** at 1/50 dilution (red) compared with a Rabbit monoclonal IgG - Isotype control (**ab172730**) (black) and an unlabeled control (cells incubated with secondary antibody only) (blue). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**), at 1/2000 dilution was used as the secondary antibody.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab218230**).

Why choose a recombinant antibody?



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Recombinant technology



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Confirmed specificity



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Anti-beta 2 Microglobulin antibody [EPR21752-214] - BSA and Azide free (ab237032)

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