Product datasheet

Anti-Bcl-2 antibody [EPR17509] ab182858

KO 評価済 リコンビナント RabMAb®

★★★★☆ 11 Abreviews  118 References  画像数 11

製品の概要

製品名  Anti-Bcl-2 antibody [EPR17509]
製品の詳細  Rabbit monoclonal [EPR17509] to Bcl-2
由来種  Rabbit
アプリケーション  適用あり: WB, Flow Cyt, IHC-P
適用なし: ICC/IF
種交差性  交差種: Mouse, Human
免疫原  Recombinant fragment within Human Bcl-2 aa 1 to the C-terminus. The exact sequence is proprietary.
Database link: P10415

ポジティブ・コントロール

WB: Human tonsil and thymus lysates; Jurkat, U-937, THP-1, HeLa, C2C12, WEHI -3 and NIH/3T3 whole cell lysates; Mouse brain, heart, kidney and spleen lysates; Human fetal kidney and fetal spleen lysates; Wild-type Hap1 cell lysate. IHC-P: Human tonsil tissue, Human endometrial cancer tissue, Mouse spleen tissue. Flow Cyt: Jurkat cells.

特記事項

This product is a recombinant monoclonal antibody, which offers several advantages including:
- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production
For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

Reproducibility is key to advancing scientific discovery and accelerating scientists’ next breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.
We are also updating the applications & species that this product has been "predicted to work with," however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

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, as well as customer reviews and Q&As.

製品の特性

製品の状態
Liquid

保存方法

バッファー
pH: 7.2
Preservative: 0.01% Sodium azide
Constituents: 59% PBS, 40% Glycerol, 0.05% BSA

精製度
Protein A purified

ポリ/モノ
モノクローナル

クローン名
EPR17509

アイソタイプ
IgG

アプリケーション

Our Abpromise guarantee covers the use of ab182858 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>アプリケーション</th>
<th>Abreviews</th>
<th>特記事項</th>
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</thead>
<tbody>
<tr>
<td>WB</td>
<td>★★★★★</td>
<td>1/2000. Detects a band of approximately 26 kDa (predicted molecular weight: 26 kDa).</td>
</tr>
<tr>
<td>Flow Cyt</td>
<td></td>
<td>1/250.</td>
</tr>
<tr>
<td>IHC-P</td>
<td>★★★★★</td>
<td>1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.</td>
</tr>
</tbody>
</table>

追加情報

Is unsuitable for ICC/IF.

ターゲット情報

機能
Suppresses apoptosis in a variety of cell systems including factor-dependent lymphohematopoietic and neural cells. Regulates cell death by controlling the mitochondrial membrane permeability. Appears to function in a feedback loop system with caspases. Inhibits caspase activity either by preventing the release of cytochrome c from the mitochondria and/or by binding to the apoptosis-activating factor (APAF-1). May attenuate inflammation by impairing
NLRP1-inflammasome activation, hence CASP1 activation and IL1B release (PubMed:17418785).

組織特異性
Expressed in a variety of tissues.

関連疾患
A chromosomal aberration involving BCL2 has been found in chronic lymphatic leukemia. Translocation t(14;18)(q32;q21) with immunoglobulin gene regions. BCL2 mutations found in non-Hodgkin lymphomas carrying the chromosomal translocation could be attributed to the Ig somatic hypermutation mechanism resulting in nucleotide transitions.

配列類似性
Belongs to the Bcl-2 family.

ドメイン
BH1 and BH2 domains are required for the interaction with BAX and for anti-apoptotic activity. The BH4 motif is required for anti-apoptotic activity and for interaction with RAF1 and EGLN3. The loop between motifs BH4 and BH3 is required for the interaction with NLRP1.

翻訳後修飾
Phosphorylation/dephosphorylation on Ser-70 regulates anti-apoptotic activity. Growth factor-stimulated phosphorylation on Ser-70 by PKC is required for the anti-apoptosis activity and occurs during the G2/M phase of the cell cycle. In the absence of growth factors, BCL2 appears to be phosphorylated by other protein kinases such as ERKs and stress-activated kinases. Phosphorylated by MAPK8/JNK1 at Thr-69, Ser-70 and Ser-87, which stimulates starvation-induced autophagy. Dephosphorylated by protein phosphatase 2A (PP2A).

Proteolytically cleaved by caspases during apoptosis. The cleaved protein, lacking the BH4 motif, has pro-apoptotic activity, causes the release of cytochrome c into the cytosol promoting further caspase activity.

Monoubiquitinated by PARK2, leading to increase its stability. Ubiquitinated by SCF(FBXO10), leading to its degradation by the proteasome.

細胞内局在

All lanes: Anti-Bcl-2 antibody [EPR17509] (ab182858) at 1/2000
dilution

Lane 1: Wild-type HeLa cell lysate
Lane 2: BCL2 knockout HeLa cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 26 kDa
Observed band size: 26 kDa

Lanes 1-2: Merged signal (red and green). Green - ab182858 observed at 26 kDa. Red - Anti-GAPDH antibody [6C5] - Loading Control (ab8245) observed at 37 kDa.

ab182858 was shown to react with Bcl-2 in wild-type HeLa cells in
western blot. Loss of signal was observed when knockout cell line ab255364 (knockout cell lysate ab263752) was used. Wild-type HeLa and BCL2 knockout HeLa cell lysates were subjected to SDS-PAGE. Membrane was blocked for 1 hour at room temperature in 0.1% TBST with 3% non-fat dried milk. ab182858 and Anti-GAPDH antibody [6C5] - Loading Control (ab8245) overnight at 4°C at a 1 in 2000 dilution and a 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.

Immunohistochemical analysis of paraffin-embedded human tonsil tissue labeling Bcl-2 with ab182858 at 1/1000 followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500. Cytoplasm, nuclear membrane and nucleus staining on lymphocytes of Human tonsil tissue is observed. Counter stained with Hematoxylin. Negative control: Used PBS instead of primary antibody followed by ab97051 at 1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Flow cytometric analysis of 4% paraformaldehyde-fixed Jurkat (Human T cell leukemia cells from peripheral blood) cells labeling Bcl-2 with ab182858 at 1/250 (red) compared with a rabbit monoclonal IgG isotype control (ab172730) (black) and a unlabelled control (cells without incubation with primary antibody and secondary antibody (blue)). Goat anti rabbit IgG (FITC) at 1/500 was used as the secondary antibody.
**Western blot - Anti-Bcl-2 antibody [EPR17509] (ab182858)**

**All lanes**: Anti-Bcl-2 antibody [EPR17509] (ab182858) at 1 µg/ml

**Lane 1**: Wild-type HAP1 whole cell lysate

**Lane 2**: BCL2 knockout HAP1 whole cell lysate

**Lane 3**: HeLa whole cell lysate

**Lane 4**: THP-1 whole cell lysate

Lysates/proteins at 20 µg per lane.

**Predicted band size**: 26 kDa

**Observed band size**: 26 kDa

**Lanes 1 - 4**: Merged signal (red and green). Green - ab182858 observed at 26 kDa. Red - loading control, ab8245, observed at 37 kDa.

ab182858 was shown to specifically react with BCL2 when BCL2 knockout samples were used. Wild-type and BCL2 knockout samples were subjected to SDS-PAGE. Ab182858 and ab8245 (Mouse anti GAPDH loading control) were incubated overnight at 4°C at 1 ug/ml and 1/10000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ab216773 and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ab216776 secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.
All lanes: Anti-Bcl-2 antibody [EPR17509] (ab182858) at 1/10000 dilution

Lane 1: NIH/3T3 (mouse embryo fibroblast cell line) whole cell lysate at 20 µg
Lane 2: WEHI-3 (mouse leukemia cell line) whole cell lysate at 20 µg
Lane 3: Mouse hippocampus at 10 µg
Lane 4: Mouse heart at 10 µg

Secondary
All lanes: Goat Anti-Rabbit IgG H&L (HRP) at 1/2000 dilution

Predicted band size: 26 kDa
Observed band size: 26 kDa

Exposure time: 8 seconds

Blocking/Diluting buffer 5% NFDM/TBST

Immunohistochemical analysis of paraffin-embedded Human endometrial cancer tissue labeling Bcl-2 with ab182858 at 1/1000 followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500.

Cytoplasm, nuclear membrane and nucleus staining on lymphocytes and cancer cells of Human endometrial cancer tissue is observed.

Counter stained with Hematoxylin.
Negative control: Used PBS instead of primary antibody followed by ab97051 at 1/500.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
**Western blot - Anti-Bcl-2 antibody [EPR17509] (ab182858)**

**All lanes**: Anti-Bcl-2 antibody [EPR17509] (ab182858) at 1/20000 dilution

- **Lane 1**: Human tonsil lysate
- **Lane 2**: Human thymus lysate
- **Lane 3**: Jurkat (Human T cell leukemia cells from peripheral blood) whole cell lysate
- **Lane 4**: U-937 (Human histiocytic lymphoma cells) whole cell lysate
- **Lane 5**: THP-1 (Human monocytic leukemia cells) whole cell lysate
- **Lane 6**: HeLa (Human epithelial cells from cervix adenocarcinoma) whole cell lysate
- **Lane 7**: C2C12 (Mouse myoblast cell line) whole cell lysate
- **Lane 8**: WEHI-3 (Mouse leukemia cell line) whole cell lysate

Lysates/proteins at 20 µg per lane.

**Secondary**

**All lanes**: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/1000 dilution

Developed using the ECL technique.

**Predicted band size**: 26 kDa

**Observed band size**: 26 kDa

**Exposure time**: 1 minute

Blocking and diluting buffer was 5% NFDM/TBST.
**Western blot - Anti-Bcl-2 antibody [EPR17509] (ab182858)**

**All lanes:** Anti-Bcl-2 antibody [EPR17509] (ab182858) at 1/2000 dilution

- **Lane 1:** Mouse brain lysate
- **Lane 2:** Mouse heart lysate
- **Lane 3:** Mouse kidney lysate
- **Lane 4:** Mouse spleen lysate
- **Lane 5:** NIH/3T3 (Mouse embryo fibroblast cell line) whole cell lysate

Lysates/proteins at 10 µg per lane.

**Secondary**

**All lanes:** Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/1000 dilution

Developed using the ECL technique.

**Predicted band size:** 26 kDa  
**Observed band size:** 26 kDa

**Exposure time:** 3 minutes

Blocking and diluting buffer was 5% NFDM/TBST.
**Western blot - Anti-Bcl-2 antibody [EPR17509] (ab182858)**

**All lanes**: Anti-Bcl-2 antibody [EPR17509] (ab182858) at 1/2000 dilution

**Lane 1**: Human fetal kidney lysate

**Lane 2**: Human fetal spleen lysate

Lysates/proteins at 10 µg per lane.

**Secondary**

**All lanes**: Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

Developed using the ECL technique.

**Predicted band size**: 26 kDa

**Observed band size**: 26 kDa

**Exposure time**: 3 minutes

Blocking and diluting buffer was 5% NFDM /TBST.

Immunohistochemical analysis of paraffin-embedded Mouse spleen tissue labeling Bcl-2 with ab182858 at 1/1000 followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500.

Cytoplasm, nuclear membrane and nucleus staining on lymphocytes of Mouse spleen tissue is observed.

Counter stained with Hematoxylin.

Negative control: Used PBS instead of primary antibody followed by ab97051 at 1/500.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
Why choose a recombinant antibody?

- Research with confidence: Consistent and reproducible results
- Long-term and scalable supply: Recombinant technology
- Success from the first experiment: Confirmed specificity
- Ethical standards: compliant
- Animal-free production:

Anti-Bcl-2 antibody [EPR17509] (ab182858)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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