abcam

## Product datasheet

# Anti-Bax antibody [6A7] ab5714

6 Abreviews 49 References 5 Images

### Overview

| | |
|---|---|
| **Product name** | Anti-Bax antibody [6A7] |
| **Description** | Mouse monoclonal [6A7] to Bax |
| **Host species** | Mouse |
| **Tested applications** | **Suitable for:** Flow Cyt, ICC/IF, IP, WB |
| **Species reactivity** | **Reacts with:** Mouse, Rat, Human, Chinese hamster |
| **Immunogen** | Synthetic peptide corresponding to Human Bax aa 12-24 (N terminal) conjugated to Keyhole Limpet Haemocyanin (KLH) (Cysteine residue).<br>Sequence:<br>CGPTSSEQIMKTGA<br><br>Database link: Q07812<br>Run BLAST with Run BLAST with |

### Properties

| | |
|---|---|
| **Form** | Liquid |
| **Storage instructions** | Shipped at 4°C. Store at 4°C (stable for up to 12 months). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle. |
| **Storage buffer** | pH: 8.20<br>Constituents: 0.09% Sodium borate, 0.09% Sodium chloride<br><br>Sodium Borate and Sodium Chloride are used to produce a Borate-buffered saline. |
| **Purity** | Protein G purified |
| **Clonality** | Monoclonal |
| **Clone number** | 6A7 |
| **Isotype** | IgG1 |

### Applications

| | |
|---|---|
| **The Abpromise guarantee** | Our Abpromise guarantee covers the use of ab5714 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 |
|---|---|---|
| **Flow Cyt** | | 1/10.<br>ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody. |
| **ICC/IF** | ★★★★★ (2) | Use a concentration of 5 µg/ml. PubMed: 14766748Use at a concentration of 5 µg/ml (see Gardai et al reference). |
| **IP** | | Use at 2 µg/mg of lysate. PubMed: 14522999Use at an assay dependent dilution (see Yethon et al reference). |
| **WB** | ★★★★☆ (3) | Use a concentration of 1 - 2 µg/ml. Detects a band of approximately 20-22 kDa. |

## Target

**Function**

Accelerates programmed cell death by binding to, and antagonizing the apoptosis repressor BCL2 or its adenovirus homolog E1B 19k protein. Under stress conditions, undergoes a conformation change that causes translocation to the mitochondrion membrane, leading to the release of cytochrome c that then triggers apoptosis. Promotes activation of CASP3, and thereby apoptosis.

**Tissue specificity**

Expressed in a wide variety of tissues. Isoform Psi is found in glial tumors. Isoform Alpha is expressed in spleen, breast, ovary, testis, colon and brain, and at low levels in skin and lung. Isoform Sigma is expressed in spleen, breast, ovary, testis, lung, colon, brain and at low levels in skin. Isoform Alpha and isoform Sigma are expressed in pro-myelocytic leukemia, histiocytic lymphoma, Burkitt's lymphoma, T-cell lymphoma, lymphoblastic leukemia, breast adenocarcinoma, ovary adenocarcinoma, prostate carcinoma, prostate adenocarcinoma, lung carcinoma, epidermoid carcinoma, small cell lung carcinoma and colon adenocarcinoma cell lines.

**Sequence similarities**

Belongs to the Bcl-2 family.

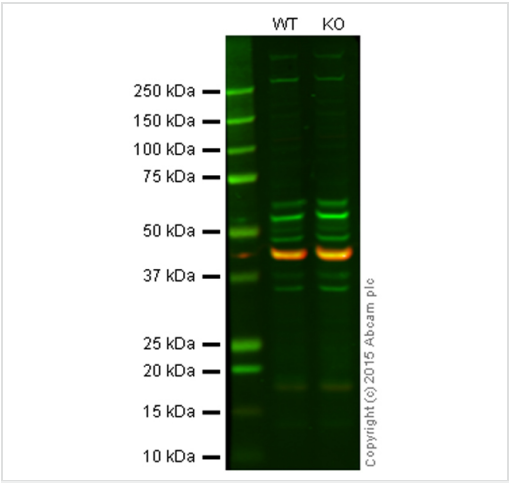
**Domain**

Intact BH3 motif is required by BIK, BID, BAK, BAD and BAX for their pro-apoptotic activity and for their interaction with anti-apoptotic members of the Bcl-2 family.

**Cellular localization**

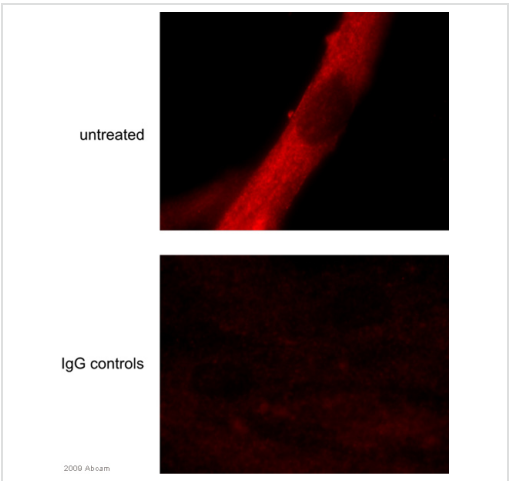
Cytoplasm and Mitochondrion membrane. Cytoplasm. Colocalizes with 14-3-3 proteins in the cytoplasm. Under stress conditions, undergoes a conformation change that causes release from JNK-phosphorylated 14-3-3 proteins and translocation to the mitochondrion membrane.

## Images




Western blot - Anti-Bax antibody [6A7] (ab5714)

**Lane 1**: Wild-type HAP1 cell lysate (20 µg)
**Lane 2**: Bax knockout HAP1 cell lysate (20 µg)
**Lanes 1 and 2**: Merged (red and green) signal
ab5714 was shown not to specifically react with Bax, when Bax knockout samples were used. Wild-type and Bax knockout samples were subjected to SDS-PAGE. ab5714 and ab8226 (loading control to beta actin) were diluted 1 µg/mL and 1/1000 respectively and incubated overnight at 4°C. Blots were developed with goat anti-rabbit IgG (H + L) and goat anti-mouse IgG (H + L) secondary antibodies at 1/10 000 dilution for 1 h at room temperature before imaging.

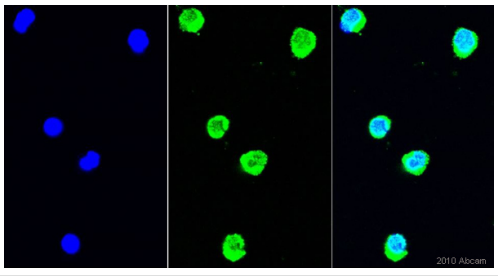



Immunocytochemistry/ Immunofluorescence - Anti-Bax antibody [6A7] (ab5714)

This image is courtesy of an Abreview submitted by Dr Alwin Scharstuhl

Immunofluorescence analysis of Human foreskin fibroblast cells, staining Bax with ab5714.

Cells were fixed with paraformaldehyde, permeabilized with 0.1% saponin prior to being blocked in 1% BSA + 2% normal goat serum for 30 mins at 20°C. Samples were incubated with 5 µg/ml primary antibody for 45 mins at 20°C; the diution buffer was 1% BSA, 0.1% saponin, 0.05% $NaN_3$ in PBS. An Alexa Fluor® 594-conjugated Goat polyclonal to mouse IgG (ab150116), dilution 1/1000, was used as secondary antibody.

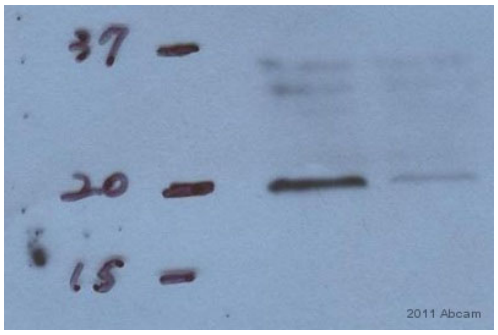



Immunocytochemistry/ Immunofluorescence - Anti-Bax antibody [6A7] (ab5714)

This image is courtesy of an anonymous Abreview

Immunofluorescence analysis of Human PMN cells staining Bax with ab5714.

The cells were fixed in paraformaldehyde, permeabilised in 0.1% Triton X-100 and then blocked using 2% BSA for 1 hour at 22°C. Samples were then incubated with primary antibody at 1/200 for 16 hours at 4°C. The secondary antibody used was a goat anti-mouse IgG (H+L) conjugated to Alexa Fluor® 488 (green) (ab150113) used at a 1/500 dilution. Counterstained with DAPI (blue).




Western blot - Anti-Bax antibody [6A7] (ab5714)

Image courtesy of an anonymous Abreview.

Anti-Bax antibody [6A7] (ab5714) at 1/2000 dilution + whole tissue lysate prepared from human islet tissue at 20 µg

**Secondary**

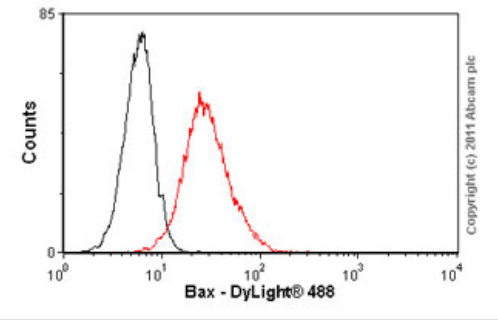
Rabbit Anti-Mouse IgG H&L (HRP) (ab6728) at 1/10000 dilution

Developed using the ECL technique.

**Observed band size:** 20 kDa

**Additional bands at:** 35 kDa. We are unsure as to the identity of these extra bands.

**Exposure time:** 30 seconds




Flow Cytometry - Anti-Bax antibody [6A7] (ab5714)

Overlay histogram showing HeLa cells stained with ab5714 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab5714, 1/10 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2µg/1x$10^6$ cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in HeLa cells fixed with methanol (5 min)/permeabilized in 0.1% PBS-Tween used under the same conditions.

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