abcam

ab32370

Anti-Bcl-XL antibody [E18]

Anti-Bcl-XL antibody [E18] (ab32370) is a rabbit monoclonal antibody detecting Bcl-XL in **Western Blot, Flow Cytometry (Intra), IP, IHC-P, ICC/IF**. Suitable for **Human, Mouse, Rat**.

- Biophysical QC for unrivalled batch-batch consistency
- Over 230 publications
- Trusted since 2006

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	E18
Purification technique	Affinity purification Protein A
Specificity	This antibody should recognize Bcl-XL, Bcl-xS and Bcl-x(beta) as the immunogen sequence is common to them. The antibody does not cross-react with other Bcl-2 family members.
Dissociation constant	6.5 x 10^{-11} M
Concentration	0.13 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Mouse
Dilution info	1/10 - 1/30
Notes	-

Species	Human
Dilution info	1/10 - 1/30
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Pig
Dilution info	-
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Rat
Dilution info	1/1000
Notes	-

Species	Human

Dilution info	1/1000
Notes	-

Predicted

Species	Pig
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Mouse
Dilution info	1/100 - 1/500
Notes	-

Species	Rat
Dilution info	1/100 - 1/500
Notes	-

Species	Human
Dilution info	1/100 - 1/500
Notes	-

Predicted

Species	Pig
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	1/20 - 1/100

Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Species	Rat
Dilution info	1/20 - 1/100
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Species	Human
Dilution info	1/20 - 1/100
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Predicted

Species	Pig
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/2000
Notes	See IHC antigen retrieval protocols. Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Pig

Dilution info	-
Notes	-

Target data

See full target information BCL2L1

Function	Potent inhibitor of cell death. Inhibits activation of caspases. Appears to regulate cell death by blocking the voltage-dependent anion channel (VDAC) by binding to it and preventing the release of the caspase activator, CYC1, from the mitochondrial membrane. Also acts as a regulator of G2 checkpoint and progression to cytokinesis during mitosis. Isoform Bcl-X(L) also regulates presynaptic plasticity, including neurotransmitter release and recovery, number of axonal mitochondria as well as size and number of synaptic vesicle clusters. During synaptic stimulation, increases ATP availability from mitochondria through regulation of mitochondrial membrane ATP synthase F(1)F(0) activity and regulates endocytic vesicle retrieval in hippocampal neurons through association with DMN1L and stimulation of its GTPase activity in synaptic vesicles. May attenuate inflammation impairing NLRP1-inflammasome activation, hence CASP1 activation and IL1B release (PubMed:17418785). Isoform Bcl-X(S) promotes apoptosis.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?
Anti-Bcl-XL antibody [E18] (ab32370) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunoprecipitation (IP), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Human, Mouse, Rat samples.

Trusted by the scientific community

Anti-Bcl-XL [E18] (ab32370) was first used in a scientific publication in 2006 and has been cited over 230 times in peer-reviewed journals.

Reviewed by scientists
Anti-Bcl-XL [E18] (ab32370) has over 10 independent reviews from customers.

Other related products
We have a range of other formats of antibody clone [E18] also available for your convenience: ab32370, Carrier free - ab199099, HRP - ab200600, PE - ab208747, Alexa Fluor® 647 - ab303457, Alexa Fluor® 555 - ab306571, Alexa Fluor® 750 - ab321595

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

What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Bcl-XL also known as Bcl-xL or Bcl-Xl protein is a member of the Bcl-2 protein family playing an important role in regulating cell death. Bcl-XL inhibits apoptosis by binding to pro-apoptotic proteins preventing the release of cytochrome c from mitochondria. This protein has a molecular weight of approximately 30 kDa. Bcl-xL is widely expressed in tissues notably in the brain endothelial cells and hematopoietic tissues where it contributes to cell survival.
Biological function summary	This protein acts as an anti-apoptotic molecule within the mitochondria and is part of the Bcl-2 family complex. Bcl-XL modulates the balance between pro-apoptotic and anti-apoptotic signals impacting cell fate. By binding and sequestering pro-apoptotic members such as Bax and Bak Bcl-XL prevents mitochondrial outer membrane permeabilization important for avoiding programmed cell death. This function not only supports cellular longevity but also understanding cancer cell survival.
Pathways	The Bcl-XL protein holds a significant position in the apoptotic signaling pathways. It is particularly involved in the intrinsic pathway where its interactions with mitochondrial proteins Bax and Bak determine cell survival or death. It is

	interconnected with the PI3K/AKT pathway where AKT kinase activity can upregulate Bcl-XL expression demonstrating how survival signals are transmitted. These interactions highlight its pivotal role in balancing life and death at the cellular level.
Associated diseases and disorders	Bcl-XL's overexpression often connects to the progression of cancers and resistance to chemotherapy. By inhibiting programmed cell death Bcl-XL allows cancer cells to evade traditional treatments. Furthermore research implicates Bcl-XL in neurodegenerative disorders where its interaction with Bcl-2 proteins disrupts normal apoptotic processes contributing to cellular dysfunction and disease. Understanding Bcl-XL's disease-related roles furthers the development of targeted therapies combating its protective effects in pathological contexts.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

17 product images

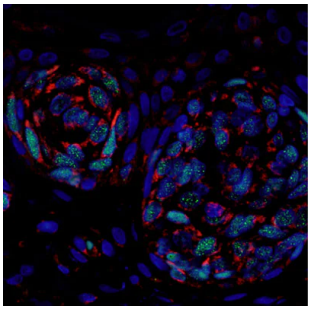
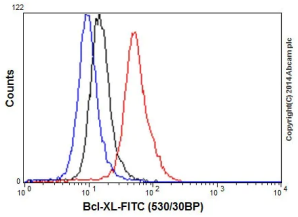


Image from Medic S & Ziman M PLoS One. 2010 Apr 22;5(4):e9977. Fig 5.; doi:10.1371/journal.pone.0009977; April 22 2010 PLoS ONE 5(4): e9977.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Bcl-XL antibody [E18] (ab32370)

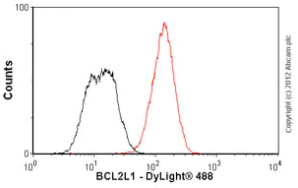
Immunohistochemistry of human primary melanoma, staining Bcl-XL (red) with unpurified ab32370.
Antigen retrieval was performed in EDTA/Tris buffer (pH 8) before being blocked with 10%NGS for one hour at room temperature. Samples were incubated with primary antibody (1/50) at room temperature for one hour. An AlexaFluor®-conjugated anti-rabbit IgG was used as the secondary antibody.



Flow Cytometry (Intracellular) - Anti-Bcl-XL antibody [E18] (ab32370)

Bcl-XL Flow Cytometry (Intracellular) staining using rabbit Anti-Bcl-XL antibody

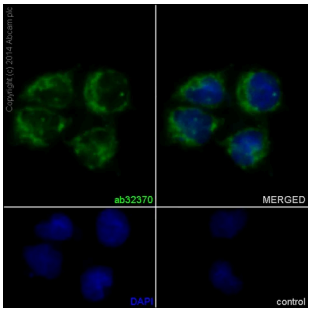
Intracellular Flow Cytometry analysis of Jurkat cells labelling Bcl-XL with purified ab32370 at 1/20 (red). Cells were fixed with 2% paraformaldehyde. A FITC-conjugated goat anti-rabbit IgG (1/150) was used as the secondary antibody. Black - Isotype control, rabbit monoclonal IgG. Blue - Unlabelled control, cells without incubation with primary and secondary antibodies.



Flow Cytometry (Intracellular) - Anti-Bcl-XL antibody [E18] (ab32370)

Bcl-XL Flow Cytometry (Intracellular) staining using rabbit Anti-Bcl-XL antibody

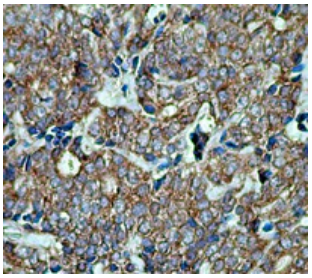
Overlay histogram showing DU145 cells stained with unpurified ab32370 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab32370, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was a goat anti-rabbit DyLight® 488 (IgG; H+L) (ab96899) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.



Immunocytochemistry/ Immunofluorescence - Anti-Bcl-XL antibody [E18] (ab32370)

Bcl-XL Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Bcl-XL antibody

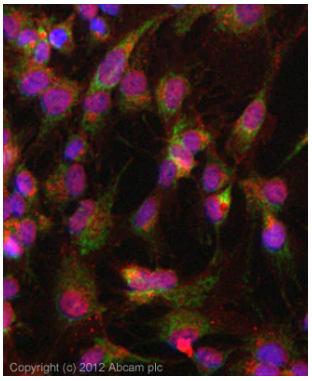
Immunocytochemistry/Immunofluorescence analysis of HeLa cells labelling Bcl-XL with purified ab32370 at 1/500. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. ab150077, a goat anti-rabbit Alexa Fluor® 488 (IgG; 1/500) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain.
Control: primary antibody (1/500) and secondary antibody, ab150120, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/500).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Bcl-XL antibody [E18] (ab32370)

Bcl-XL Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Bcl-XL antibody

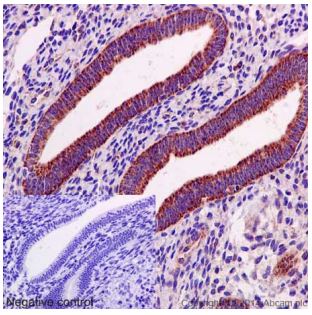
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human prostate carcinoma tissue labelling Bcl-XL with unpurified ab32370 at 1/50.



Immunocytochemistry/ Immunofluorescence - Anti-Bcl-XL antibody [E18] (ab32370)

Bcl-XL Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Bcl-XL antibody

ICC/IF image of unpurified ab32370 stained HepG2 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab32370, 1/100) overnight at +4°C. The secondary antibody (green) was ab96899, goat anti-rabbit DyLight® 488 (IgG; H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Bcl-XL antibody [E18] (ab32370)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human endometrium tissue labelling Bcl-XL with purified ab32370 at 1/2000. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. ab97051, a HRP-conjugated goat anti-rabbit HRP (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Bcl-XL antibody [E18] (ab32370)

Bcl-XL Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human tonsil tissue using rabbit Anti-Bcl-XL antibody

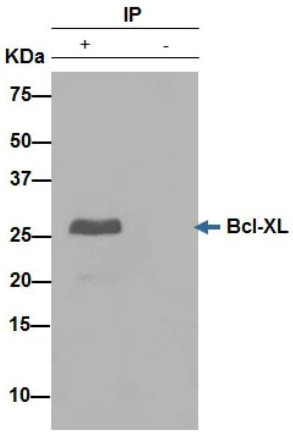
The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Paraffin embedded human tonsil tissue slides were dewaxed, followed by heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, Epitope Retrieval ER2 Solution) for 20 mins. Endogenous peroxidase activity was blocked by Refine Detection Kit Peroxide Block for 10 mins. The sections were then incubated with ab32370 (1/1000) at room temperature for 30 mins, followed by a ready to use LeicaDS9800 (BOND Polymer Refine Detection Kit). The sections were counterstained with Hematoxylin. The images were taken with a Leica Aperio AT2.

ab32370 was stored at a range of temperatures (+4°C, +22°C, +37°C) for 1 week before being tested in IHC-P. The image shows the staining intensity remains relatively constant across all storage temperatures, demonstrating that antibody activity is not affected

This blot was produced using 4-20% SDS-PAGE containing 15 µg of K-562 whole cell lysate per lane at 150V for 1hr before being transferred onto a 0.45 µm PVDF membrane at 75V for 1hr. The membrane was then blocked for 1hr using 5% NFDM/TBST, then incubated with ab32370 (1/1000) at room temperature for 1hr. After being washed three times in TBST, the membrane was incubated with Peroxidase conjugated goat anti-rabbit IgG (H+L) (ab97051) at 1/20,000 dilution for

1hr at room temperature. The membrane was washed three times again. Then the signal was developed using the ECL technique.

ab32370 was stored at a range of temperatures (+4°C, +22°C, +37°C) for 1 week before being tested in WB. The image shows the band intensity remains relatively constant across all storage temperatures, demonstrating that antibody activity is not affected under these conditions. This data was generated as part of a structured antibody stability study supporting Abcam’ s transition from cold⊠chain to ambient shipping.



Immunoprecipitation - Anti-Bcl-XL antibody [E18] (ab32370)

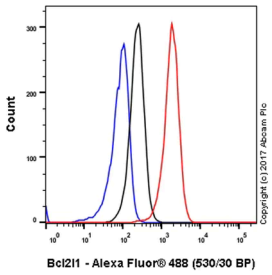
ab32370 (purified) at 1/30 immunoprecipitating Bcl-XL in Jurkat cell lysate (Lane 1). Lane 2 - PBS. For western blotting, a HRP-conjugated anti-rabbit IgG, specific to the non-reduced form of IgG was used as the secondary antibody (1/1500).
Blocking buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM /TBST.

All lanes:
Immunoprecipitation - Anti-Bcl-XL antibody [E18] (ab32370)

Predicted band size: 26 kDa

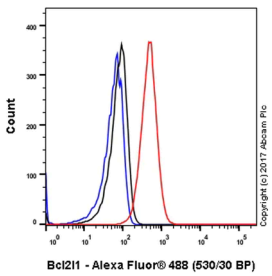
Observed band size: 26 kDa



Flow Cytometry (Intracellular) - Anti-Bcl-XL antibody [E18] (ab32370)

Bcl-XL Flow Cytometry (Intracellular) staining using rabbit Anti-Bcl-XL antibody

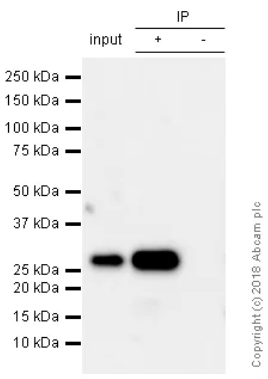
Flow cytometry analysis of C6 (Rat glial tumor glial cell) cells labelling Bcl-XL with ab32370 at 1/20 dilution (7.1 ©:g/ml) (Red). Cells were fixed with 4% paraformaldehyde . Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (ab172730) (Black). Unlabeled control - Unlabelled cells (Blue).



Flow Cytometry (Intracellular) - Anti-Bcl-XL antibody [E18] (ab32370)

Bcl-XL Flow Cytometry (Intracellular) staining using rabbit Anti-Bcl-XL antibody

Flow cytometry analysis of NIH/3T3 (Mouse embryonic fibroblast) cells labelling Bcl-XL with ab32370 at 1/20 dilution (7.1 ©:g/ml) (Red). Cells were fixed with 4% paraformaldehyde . Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (ab172730) (Black). Unlabeled control - Unlabelled cells (Blue).



Immunoprecipitation - Anti-Bcl-XL antibody [E18] (ab32370)

ab32370 (purified) at 1/500 dilution (0.28 ©:g/ml) immunoprecipitating Bcl-XL in NIH/3T3 whole cell lysate.
Lane 1 (input): NIH/3T3(Mouse embryonic fibroblast) whole cell lysate 10©:g
Lane 2 (+): ab32370 & NIH/3T3 whole cell lysate
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab32370 in NIH/3T3 whole cell lysate
For western blotting, VeriBlot for IP secondary antibody (HRP) (ab131366) was used as the secondary antibody at 1/1000 dilution.
Blocking and diluting buffer: 5% NFDM /TBST .
All lanes:
Immunoprecipitation - Anti-Bcl-XL antibody [E18] (ab32370)

Predicted band size: 26 kDa

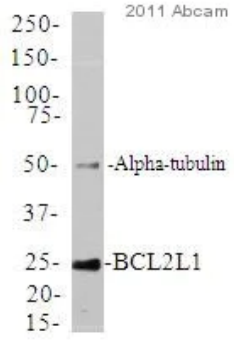


Image courtesy of an anonymous customer review.

Western blot - Anti-Bcl-XL antibody [E18] (ab32370)

Patient recieved anthracycline and taxane neoadjuvant chemotherapy.
All lanes:
Western blot - Anti-Bcl-XL antibody [E18] (ab32370) at 1/500 dilution

All lanes:
whole cell lysate prepared from a clinical sample of human breast cancer cells at 20 µg

Secondary

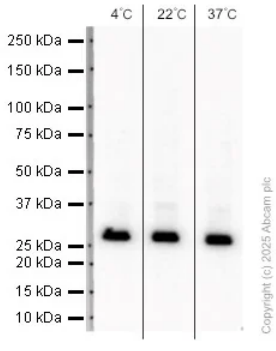
All lanes:
Goat anti-rabbit IgG-HRP at 1/1000 dilution

Developed using the ECL technique.

Predicted band size: 26 kDa

Observed band size: 26 kDa

Exposure time: 15min



Western blot - Anti-Bcl-XL antibody [E18] (ab32370)

Bcl-XL Western blot staining of K562 whole cell lysate using rabbit Anti-Bcl-XL antibody

This blot was produced using 4-20% SDS-PAGE containing 15 µg of K-562 whole cell lysate per lane at 150V for 1hr before being transferred onto a 0.45 µm PVDF membrane at 75V for 1hr. The membrane was then blocked for 1hr using 5% NFDM/TBST, then incubated with ab32370 (1/1000) at room temperature for 1hr. After being washed three times in TBST, the membrane was incubated with Peroxidase conjugated goat anti-rabbit IgG (H+L) (ab97051) at 1/20,000 dilution for 1hr at room temperature. The membrane was washed three times again. Then the signal was developed using the ECL technique.

ab32370 was stored at a range of temperatures (+4°C, +22°C, +37°C) for 1 week before being tested in WB. The image shows the band intensity remains relatively constant across all storage temperatures, demonstrating that antibody activity is not affected under these conditions. This data was generated as part of a structured antibody stability study supporting Abcam’ s transition from cold⊠chain to ambient shipping.

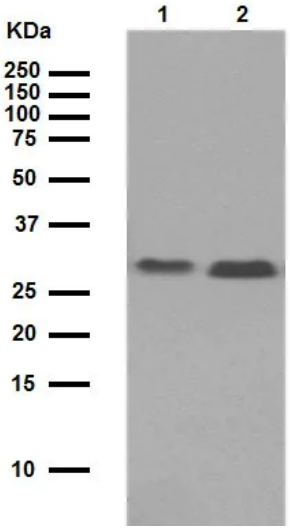
All lanes:
Western blot - Anti-Bcl-XL antibody [E18] (ab32370) at 1/1000 dilution

All lanes:
K562 whole cell lysate at 15 µg with NDFM/TBST

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Exposure time: 80s



Western blot - Anti-Bcl-XL antibody [E18] (ab32370)

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

All lanes:
Western blot - Anti-Bcl-XL antibody [E18] (ab32370) at 1/1000 dilution

Lane 1:
Jurkat cell lysate at 20 µg

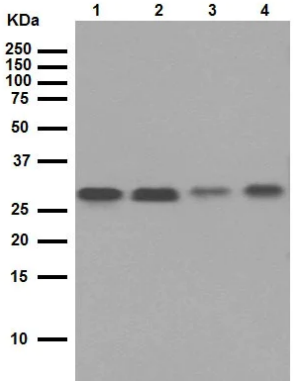
Lane 2:
K562 cell lysate at 20 µg

Secondary

All lanes:
Peroxidase-conjugated goat anti-rabbit IgG (H+L) at 1/1000 dilution

Predicted band size: 26 kDa

Observed band size: 26 kDa



Western blot - Anti-Bcl-XL antibody [E18] (ab32370)

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

All lanes:
Western blot - Anti-Bcl-XL antibody [E18] (ab32370) at 1/1000 dilution

Lane 1:
C6 cell lysate at 20 µg

Lane 2:
RAW264.7 cell lysate at 20 µg

Lane 3:
PC-12 cell lysate at 20 µg

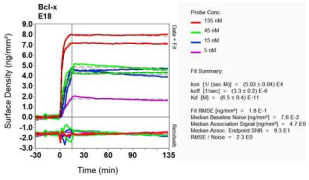
Lane 4:
NIH/3T3 cell lysate at 20 µg

Secondary

All lanes:
Peroxidase-conjugated goat anti-rabbit IgG (H+L) at 1/1000 dilution

Predicted band size: 26 kDa

Observed band size: 26 kDa



OI-RD Scanning - Anti-Bcl-XL antibody [E18] (ab32370)

We have systematically measured KD (the equilibrium dissociation constant between the antibody and its antigen), of more than 840 recombinant antibodies to assess not only their individual KD values but also to see the average affinity of antibody. Based on the comparison with published literature values for mouse monoclonal antibodies, Recombinant antibodies appear to be on average 1-2 order of magnitude higher affinity.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.