abcam

Product datasheet

Human Bcl-2 ELISA Kit ab119506

21 References 1 Image

Overview

Product name Human Bcl-2 ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Overall				8.6%

Inter-assay

Sample	n	Mean	SD	CV%
Overall				12%

Sample type Serum, Plasma, Cell culture extracts

Assay type Sandwich (quantitative)

Sensitivity 0.5 ng/ml

Range 0.5 ng/ml - 32 ng/ml

Recovery 71 %

Assay duration Multiple steps standard assay

Species reactivity **Reacts with:** Human

Product overview Human Bcl-2 in vitro ELISA (Enzyme-Linked Immunosorbent Assay) kit (ab119506) is designed for accurate quantitative measurement of Human Bcl-2 concentrations in cell lysates, serum and plasma.

Bcl-2 specific antibodies have been precoated onto 96-well plates. Standards and test samples are added to the wells along with a biotin-conjugated Bcl-2 detection antibody then incubated at room temperature. Following washing, a Streptavidin-HRP conjugate is added to each well, incubated at room temperature and washed. TMB is added and then catalyzed by HRP to produce a blue product that changes to yellow after the addition of acidic stop solution. The density of yellow coloration is directly proportional to the amount of Bcl-2 captured on the plate.

Get results in 90 minutes with Human Bcl-2 ELISA Kit (**ab202411**) from our SimpleStep ELISA® range.

Platform Microplate

Properties

Storage instructions Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
20X Assay Buffer Concentrate	1 x 5ml
20X Wash Buffer Concentrate	1 x 50ml
Adhesive Films	4 units
Biotin-Conjugate anti-human Bcl-2 monoclonal antibody	1 x 70µl
Human Bcl-2 Standard lyophilized (64 ng/mL upon reconstitution)	2 vials
Lysis Buffer (10x)	1 x 15ml
Microplate coated with monoclonal antibody to Bcl-2 (12 x 8 wells)	1 unit
Sample Diluent	1 x 12ml
Stop Solution (1M Phosphoric acid)	1 x 15ml
Streptavidin-HRP	1 x 150µl
TMB Substrate Solution	1 x 15ml

Function 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).

Tissue specificity Expressed in a variety of tissues.

Involvement in disease 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.

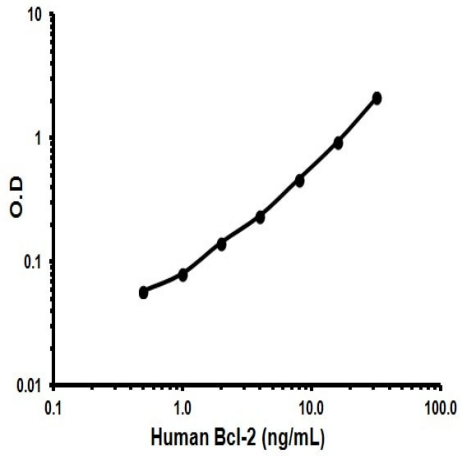
Sequence similarities Belongs to the Bcl-2 family.

Domain 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.

Post-translational modifications 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, wich 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.
Cellular localization	Mitochondrion outer membrane. Nucleus membrane. Endoplasmic reticulum membrane.

Images



Typical Standard Curve

Representative Standard Curve using ab119506.

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