

Human Bcl-2 ELISA Kit ab272102

SimpleStep ELISA®

1 References 画像数 4

製品の概要

製品名	Human Bcl-2 ELISA Kit				
検出方法	Colorimetric				
再現性	Intra-Assay (同時再現性)				
	サンプル	N	平均値	SD	CV%
	Extract	5			6.3%
	Inter-Assay (日差再現性)				
	サンプル	N	平均値	SD	CV%
	Extract	3			6.2%
サンプルの種類	Cell culture extracts, Tissue Extracts				
アッセイタイプ	Sandwich (quantitative)				
検出感度	38.08 pg/ml				
検出範囲	195.31 pg/ml - 12500 pg/ml				
添加回収試験	特定サンプルでの回収試験				
	サンプルの種類		平均 %	測定範囲	
	Cell culture extracts		107	103% - 111%	
	Tissue Extracts		113	111% - 116%	
全工程の試験時間	1h 30m				
ステップ	One step assay				
種交差性	交差種: Human				
製品の概要	Human Bcl-2 ELISA Kit (ab272102) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Bcl-2 protein in human cell and tissue extracts. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human Bcl-2 with 38.08 pg/ml sensitivity.				

SimpleStep ELISA® technology employs capture antibodies conjugated to an affinity tag that is recognized by the monoclonal antibody used to coat our SimpleStep ELISA® plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA® protocol summary in the image section for further details. Our SimpleStep ELISA® technology provides several benefits:

- Single-wash protocol reduces assay time to 90 minutes or less
- High sensitivity, specificity and reproducibility from superior antibodies
- Fully validated in biological samples
- 96-wells plate breakable into 12 x 8 wells strips

A 384-well SimpleStep ELISA® microplate (**ab203359**) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

特記事項

Bcl-2 is the founding member of the apoptotic-regulating Bcl-2 family of proteins. It is considered an apoptosis suppressor in many cell systems and has been shown to interact with many other proteins involved in cell cycle regulation, autophagy, mitochondrial membrane stability, and oxidative stress response, among many others. As such an important protein involved in cell regulation, mutation or damage to the protein's structure or function are critically linked to a variety of cancers. In particular, a chromosomal translocation occurs in follicular lymphoma which causes the Bcl-2 gene to relocate next to the heavy chain immunoglobulin locus. The unregulated expression of the fusion protein causes an excessively high amount of Bcl-2, disrupting the cell's apoptosis regulation and leading to unregulated cell growth.

Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances.

It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

試験プラットフォーム

Pre-coated microplate (12 x 8 well strips)

製品の特性

保存方法

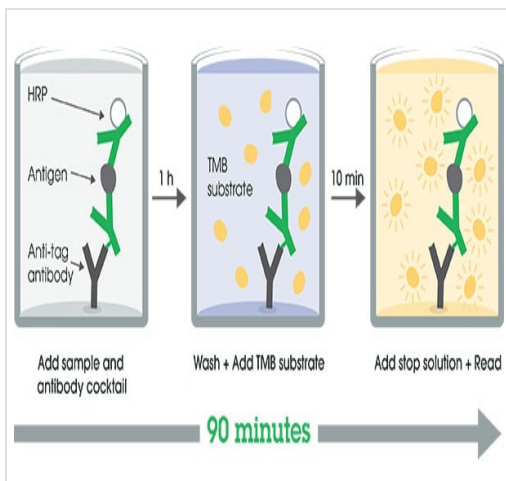
Store at +4°C. Please refer to protocols.

内容	1 x 96 tests
10X Human Bcl-2 Capture Antibody	1 x 600µl
10X Human Bcl-2 Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml
Antibody Diluent 5BI	1 x 6ml
Human Bcl-2 Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit

内容	1 x 96 tests
Sample Diluent NS (ab193972)	1 x 12ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

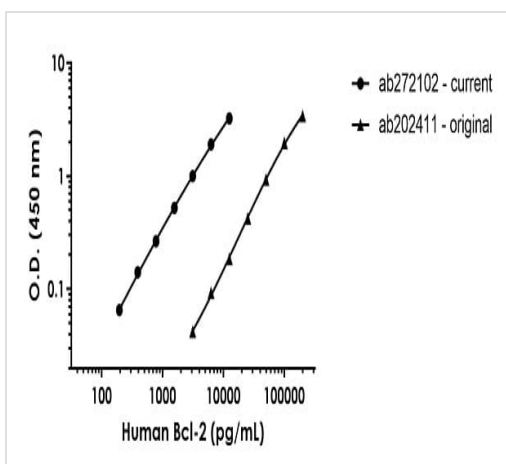
機能	Suppresses apoptosis in a variety of cell systems including factor-dependent lymphohematopoietic and neural cells. Regulates cell death by controlling the mitochondrial membrane permeability. Appears to function in a feedback loop system with caspases. Inhibits caspase activity either by preventing 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	Mitochondrion outer membrane. Nucleus membrane. Endoplasmic reticulum membrane.

画像



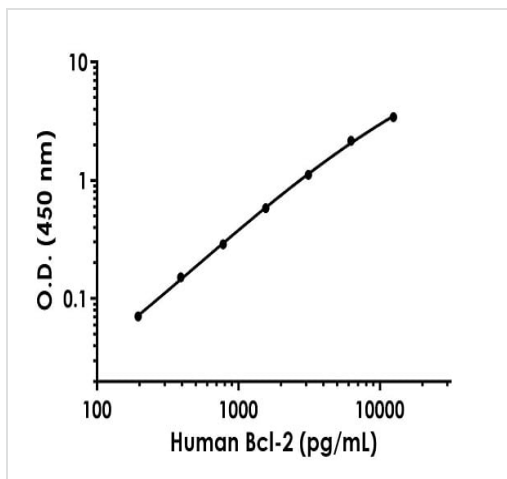
SimpleStep ELISA Protocol Diagram

SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



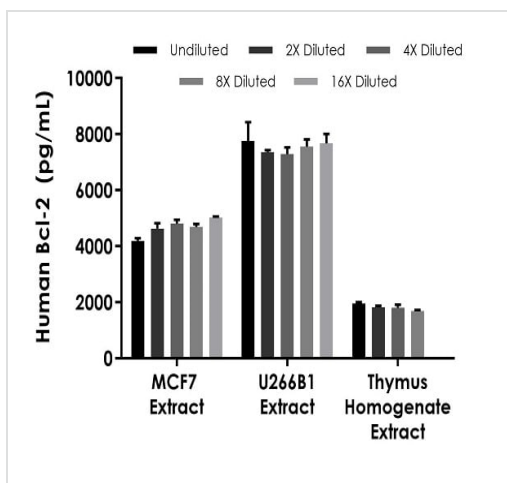
Human Bcl-2 standard curve comparison

Standard Curve comparison between the original Human Bcl-2 SimpleStep ELISA kit (**ab202411**) and current Human MMP3 SimpleStep ELISA kit (ab272102).



Example of human Bcl-2 standard curve in 1X Cell Extraction Buffer PTR.

The Bcl-2 standard curve was prepared as described in Section 10. Raw data values are shown in the table. Background-subtracted data values (mean \pm SD) are graphed.



Interpolated concentrations of native Bcl-2 in human MCF7, U266B1, and thymus homogenate extract samples based on 250, 62.50, and 250 μ g/mL extract loads respectively.

The concentrations of Bcl-2 were measured in duplicate and interpolated from the Bcl-2 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean \pm SD, n=2). The mean Bcl-2 concentration was determined to be 4,668 pg/mL in MCF7, 7,515 pg/ml in U266B1, and 1,815 pg/ml in thymus homogenate extract.

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