See 9 publications below

See 1 publications below





Bcl-2 Monoclonal Antibody (Bcl-2-100)

Catalog Number 13-8800 Product data sheet

Details	
Size	100 µg
Host/Isotope	Mouse / IgG1, kappa
Class	Monoclonal
Туре	Antibody
Clone	Bcl-2-100
Immunogen	Synthetic peptide corresponding to residues 41-54 of the human Bcl-2 protein. This sequence is not shared by the mouse Bcl-2 protein.
Conjugate	Unconjugated
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.4
Contains	0.1% sodium azide
Storage Conditions	-20°C

Species Reactivity		
Species reactivity	Human	
Published species	Rat, Bacteria, Human, Chicken, Not Applicable	
Tested Applications	Dilution *	
Flow Cytometry (Flow)	Assay-dependent	
Immunohistochemistry (IHC)	Assay-dependent	
Immunoprecipitation (IP)	Assay-dependent	
Western Blot (WB)	1 μg/mL	
Published Applications		
Western Blot (WB)	See 12 publications below	
Immunocytochemistry (ICC/IF)	See 1 publications below	
Flow Cytometry (Flow)	See 1 publications below	
Miscellaneous PubMed (Misc)	See 7 publications below	
Immunohistochemistry (IHC)	See 4 publications below	

Immunohistochemistry (Paraffin)

Immunoprecipitation (IP)

Background/Target Information

BCL-2 is a key regulator of apoptosis that functions to either inhibit or promote cell death. The BCL-2 family members are also characterized by dimerizing to further modulate apoptosis. Bag1, for example, has been found to form a heterodimer with BCL-2 resulting in the enhancement of the anti-apoptotic effect of BCL-2. Bax and Bak have been shown to play a critical role in cytochrome c release from mitochondria and thus initiate apoptosis. Bax exerts a pro-apoptotic rather than an anti-apoptotic effect on cells. Constitutive expression of BCL2, such as in the case of translocation of BCL2 to Ig heavy chain locus, is thought to be the cause of follicular lymphoma. In most follicular lymphomas, neoplastic germinal centers express high levels of BCL-2 alpha protein, whereas the normal or hyperplastic germinal centers are negative. Two transcript variants of BCL-2, produced by alternate splicing, differ in their C-terminal ends. The overexpression of BCL-2 has been linked to human cancers such as B-cell lymphoma and prostate cancer.

(IHC (P))

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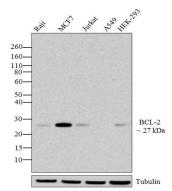
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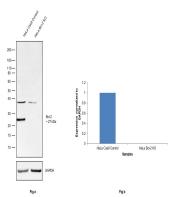
^{*} Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.

Product Images For BcI-2 Monoclonal Antibody (BcI-2-100)



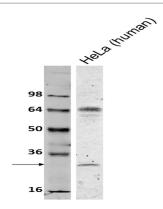
Bcl-2 Antibody (13-8800) in WB

Western blot analysis of BCL-2 was performed by loading 20 µg of Raji (lane1), MCF7 (lane2), Jurkat (lane3), A549 (lane4) and HEK-293 (lane5) cell lysates using Novex® NuPAGE® 4-12 % Bis-Tris gel (Product # NP0321BOX), XCell SureLock Electrophoresis System (Product # El0002), Novex® Sharp Pre-Stained Protein Standard (Product # LC5800), and iBlot® Dry Blotting System (Product # IB21001). Proteins were transferred to a nitrocellulose membrane and blocked with 5 % skim milk for 1 hour at room temperature. BCL-2 was detected at ~27 kDa using BCL-2 Mouse Monoclonal Antibody (Product # 13-8800) at 1-3 µg/mL dilution in 2.5 % skim milk at 4°C overnight on a rocking platform. Goat anti-Mouse IgG - HRP Secondary Antibody (Product # G-21234) at 1:4000 dilution was used and chemiluminescent detection was performed using PierceTM ECL Western blotting Substrate (Product # 32106).



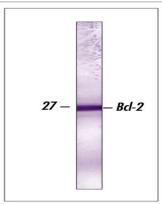
Bcl-2 Antibody (13-8800) in WB

Knockout of Bcl-2 was achieved by CRISPR-Cas9 genome editing using LentiArray™ Lentiviral sgRNA (Product # A32042, Assay ID) and LentiArray Cas9 Lentivirus (Product # A32064). Western blot analysis of Bcl-2 was performed by loading 30 µg of HeLa Cas9 (Lane 1) and andHeLa Bcl-2 KO (Lane 2) whole cell extracts. The samples were electrophoresed using NuPAGE™ Novex™ 4-12% Bis-Tris Protein Gel (Product # NP0322BOX). Resolved proteins were then transferred onto a nitrocellulose membrane (Product # IB23001) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with Anti-Bcl-2 Monoclonal Antibody (Bcl-2-100) (Product # 13-8800, 1:500 dilution) and Goat anti-Mouse IgG (H+L) Superclonal™ Recombinant Secondary Antibody, HRP (Product # A28177, 1:10,000 dilution) using the iBright FL 1000 (Product # A32752). Chemiluminescent detection was performed using Novex® ECL Chemiluminescent Substrate Reagent Kit (Product # WP20005). Loss of signal upon CRISPR mediated knockout (KO) using the LentiArray™ CRISPR product line confirms that antibody is specific to Bcl-2. An uncharacterized band was observed at ~38 kDa in both the samples.



Bcl-2 Antibody (13-8800) in WB

Western blot analysis of Bcl2 was performed by loading 2 μ L SeeBlue® Plus2 Prestained Protein Ladder (Product # LC5925) (lane 1) and 50 μ g HeLa (lane 2, HeLa (human) cell lysate onto a 10% Tris-Glycine polyacrylamide gel. Proteins were transferred to a nitrocellulose membrane and blocked with 1% BSA/TBST for at least 1 hour at room temperature. Bcl2 was detected using a monoclonal antibody (Product # 13-8800) at a concentration of 1 μ g/mL in blocking buffer overnight at 4°C on a rocking platform, followed by a goat anti-mouse IgG Alexa Fluor 680 secondary antibody (Product # A11357) at a dilution of 1:10,000 for at least 1 hour. Fluorescent detection was performed using the Odyssey® CLx imaging system (Li-cor Biosciences). Images generated by Joell Solan in Paul Lampe Lab at Fred Hutchinson Cancer Research Center.



Bcl-2 Antibody (13-8800) in WB

Western blot analysis of Bcl-2 expression in Jurkat cells using Ms x BCl-2.

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	Bcl-2 Monoclonal Antibody (Bcl-2-100)
12 Western Blot Reference	
Species / Dilution	Summary
Human / 1:500	13-8800 was used in Western Blotting to indicate that BH3 profiling facilitates the identification of the functional role of anti apoptotic proteins during drug resistance and has clinical implications for colon cancer in targeting specific proteins such as BCLXL.
	Oncology reports (2019; 42: 2416) "BH3 profiling discriminates the antiapoptotic status of 5fluorouracilresistant colon cancer cells." Author(s):Ishikawa K,Kawano Y,Arihara Y,Kubo T,Takada K,Murase K,Miyanishi K,Kobune M,Kato J PubMed Article URL:http://dx.doi.org/10.3892/or.2019.7373
Human / Not Cited	Atherosclerosis (2010; 211: 103) "Paracrine factors secreted by endothelial progenitor cells prevent oxidative stress-induced apoptosis of mature endothelial cells." Author(s):Yang Z,von Ballmoos MW,Faessler D,Voelzmann J,Ortmann J,Diehm N,Kalka-Moll W,Baumgartner I,Di Santo S,Kalka C PubMed Article URL:http://dx.doi.org/10.1016/j.atherosclerosis.2010.02.022
	13-8800 was used in Western Blotting to investigate the effect of a natural agent, Emodin, on CoCa.
Human / Not Cited	Cancer cell international (2022; 19:) "Emodin inhibits colon cancer by altering BCL-2 family proteins and cell survival pathways." Author(s):Saunders IT,Mir H,Kapur N,Singh S PubMed Article URL:http://dx.doi.org/10.1186/s12935-019-0820-3
	13-8800 was used in western blot to challenge the hypothesis that the anti-apoptotic properties of Bcl-2 are linked to a global increase in antioxidant status
Not Applicable / Not Cited	Biochemical and biophysical research communications (2008; 375: 145) "Inhibition of receptor-mediated apoptosis upon BcI-2 overexpression is not associated with increased antioxidant status." Author(s):Thomson SJ,Cox AG,Cuddihy SL,Pullar JM,Hampton MB PubMed Article URL:http://dx.doi.org/10.1016/j.bbrc.2008.07.133
	13-8800 was used in western blot elucidate Bim regulation in T cells
Human / 1:1000	Proceedings of the National Academy of Sciences of the United States of America (2004; 101: 3011) "Regulation of expression of Bcl-2 protein family member Bim by T cell receptor triggering." Author(s):Sandalova E,Wei CH,Masucci MG,Levitsky V PubMed Article URL:http://dx.doi.org/10.1073/pnas.0400005101
Human / Not Cited	Carcinogenesis (2004; 25: 765) "The chemopreventive agent phenethyl isothiocyanate sensitizes cells to Fas-mediated apoptosis." Author(s):Pullar JM,Thomson SJ,King MJ,Turnbull CI,Midwinter RG,Hampton MB PubMed Article URL:http://dx.doi.org/10.1093/carcin/bgh063
Human / 1:500	13-8800 was used in Western Blotting to demonstrate a role for SULF2 in the regulation of autophagic flux that is mediated through LAPTM4B induction in hepatocellular carcinoma (HCC) cells, and provide a foundation for future translational efforts targeting autophagy in liver malignancies.
	Hepatology communications (2019; 3: 1520) "Induction of Lysosome-associated Protein Transmembrane 4 Beta via Sulfatase 2 Enhances Autophagic Flux in Liver Cancer Cells." Author(s):Ha Y,Fang Y,Romecin Duran PA,Tolosa EJ,Moser CD,Fernandez-Zapico ME,Roberts LR PubMed Article URL:http://dx.doi.org/10.1002/hep4.1429
Human / Not Cited	13-8800 was used in Western Blot to show that modulation of MRP4 could be a mediator of ZEB1-related resistance to docetaxel in prostate cancer, making it a possible marker for chemotherapy response in patients who do not express MDR1.
	Asian journal of andrology (2020; 21: 460) "The transcription factor ZEB1 promotes chemoresistance in prostate cancer cell lines." Author(s):Orellana-Serradell O,Herrera D,Castellón EA,Contreras HR PubMed Article URL:http://dx.doi.org/10.4103/aja.aja_1_19
Human / 1:1000	13-8800 was used in Western Blot to indicate that GAS5 participated in the development of OA by regulating the biological behavior of chondrocytes via the miR,34a/Bcl,2 axis.
	Molecular medicine reports (2020; 21: 1310) "Silencing of longchain noncoding RNA GAS5 in osteoarthritic chondrocytes is mediated by targeting the miR34a/Bcl2 axis." Author(s):Ji Q,Qiao X,Liu Y,Wang D,Yan J PubMed Article URL:http://dx.doi.org/10.3892/mmr.2019.10900

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	138800 was used in western blot to elucidate how FADD contributes to mitochondrial-associated apoptosis
Human / 1:250	Molecular and cellular biochemistry (2016; 422: 135) "Expression of FADD and cFLIP _L balances mitochondrial integrity and redox signaling to substantiate apoptotic cell death." Author(s):Ranjan K,Pathak C PubMed Article URL:http://dx.doi.org/10.1007/s11010-016-2813-z
Human / 1:1000	13-8800 was used in Western Blotting to study the effects of Lycium barbarum polysaccharides on the damage to human endometrial stromal cells induced by hydrogen peroxide.
	Molecular medicine reports (2017; 15: 879) "Effects of Lycium barbarum polysaccharides on the damage to human endometrial stromal cells induced by hydrogen peroxide." Author(s):Shan T,Shan T,Liu F,Zheng H,Li G PubMed Article URL:http://dx.doi.org/10.3892/mmr.2016.6080
	13-8800 was used in Western Blot to indicate that the mTORC1/S6K/PDCD4/eIF4A axis has a pivotal role in the death versus slippage decision during mitotic arrest and may be exploited clinically to treat tumors resistant to anti-mitotic agents.
Human / Not Cited	Cell reports (2020; 33:) "The mTORC1/S6K/PDCD4/eIF4A Axis Determines Outcome of Mitotic Arrest." Author(s):Moustafa-Kamal M,Kucharski TJ,EI-Assaad W,Abbas YM,Gandin V,Nagar B,Pelletier J,Topisirovic I,Teodoro JG PubMed Article URL:http://dx.doi.org/10.1016/j.celrep.2020.108230
1 Immunocytochemistry R	eferences
Species / Dilution	Summary
	13-8800 was used in immunocytochemistry to investigate how antibodies to double stranded-DNA induce apoptosis
Not Applicable / Not Cited	Journal of autoimmunity (2006; 26: 52) "Cell-penetrating anti-native DNA antibodies trigger apoptosis through both the neglect and programmed pathways." Author(s):Rivadeneyra-Espinoza L,Ruiz-Argüelles A PubMed Article URL:http://dx.doi.org/10.1016/j.jaut.2005.10.008
1 Flow Cytometry Reference	ces
Species / Dilution	Summary
Human / Not Cited	13-8800 was used in Flow cytometry/Cell sorting to provide a mechanistic rationale for combination therapy of CXCR4 and BCL-2 inhibitors to treat a common and commonly aggressive pediatric cancer.
	Cancer research (2018; 78: 1471) "CXCR4 Promotes Neuroblastoma Growth and Therapeutic Resistance through miR-15a/16-1-Mediated ERK and BCL2/Cyclin D1 Pathways." Author(s):Klein S,Abraham M,Bulvik B,Dery E,Weiss ID,Barashi N,Abramovitch R,Wald H,Harel Y,Olam D,Weiss L,Beide K,Eizenberg O,Wald O,Galun E,Pereg Y,Peled A PubMed Article URL:http://dx.doi.org/10.1158/0008-5472.CAN-17-0454
7 Miscellaneous PubMed F	References
Species / Dilution	Summary
Human / 1:500	13-8800 was used in immunohistochemistry - paraffin section to report on four cases of idiopathic cervical fibrosis
	The American journal of surgical pathology (2010; 34: 1678) "Idiopathic cervical fibrosisa new member of IgG4-related sclerosing diseases: report of 4 cases, 1 complicated by composite lymphoma." Author(s):Cheuk W,Tam FK,Chan AN,Luk IS,Yuen AP,Chan WK,Hung TC,Chan JK PubMed Article URL:http://dx.doi.org/10.1097/PAS.0b013e3181f12c85
	13-8800 was used in flow cytometry to separate synovial cells from rheumatoid arthritis synovium based on their proliferative or apoptotic features.
Human / Not Cited	Arthritis and rheumatism (2000; 43: 2513) "Intercellular adhesion molecule 1 underlies the functional heterogeneity of synovial cells in patients with

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Author(s):Tanaka Y,Nomi M,Fujii K,Hübscher S,Maruo A,Matsumoto S,Awazu Y,Saito K,Eto S,Minami Y PubMed Article URL:http://dx.doi.org/10.1002/1529-0131(200011)43:11<2513::AID-ANR19>3.0.CO;2-C

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rheumatoid arthritis: involvement of cell cycle machinery."

	13-8800 was used in immunohistochemistry (paraffin) to assess the immunoexpression of the proliferation index, epidermal growth factor receptor, and bcl-2 as prognostic factors in patients with Grade 2 oligodendroglioma.
Human / 1:20	Cancer (2000; 88: 862) "Evaluation of cell proliferation, epidermal growth factor receptor, and bcl-2 immunoexpression as prognostic factors for patients with World Health Organization grade 2 oligodendroglioma." Author(s):Reis-Filho JS,Faoro LN,Carrilho C,Bleggi-Torres LF,Schmitt FC PubMed Article URL:http://dx.doi.org/10.1002/(sici)1097-0142(20000215)88:4<862::aid-cncr17>3.0.co;2-g
Human / Not Cited	13-8800 was used in immunohistochemistry (paraffin) to determine the clinical significance of PPAR- expression in non-small cell lung carcinoma.
	Pathology oncology research: POR (2012; 18: 875) "Expression of peroxisome proliferator activated receptor-gamma (PPAR-) in human non-small cell lung carcinoma: correlation with clinicopathological parameters, proliferation and apoptosis related molecules and patients' survival." Author(s):Giaginis C,Politi E,Alexandrou P,Sfiniadakis J,Kouraklis G,Theocharis S PubMed Article URL:http://dx.doi.org/10.1007/s12253-012-9517-9
Human / Not Cited	13-8800 was used in western blot to study the relationship between FKBP12-rapamycin associated protein and mitochondrial dysfunction during osmatic stress.
	Proceedings of the National Academy of Sciences of the United States of America (2002; 99: 4319) "FKBP12-rapamycin-associated protein associates with mitochondria and senses osmotic stress via mitochondrial dysfunction." Author(s):Desai BN,Myers BR,Schreiber SL PubMed Article URL:http://dx.doi.org/10.1073/pnas.261702698
	13-8800 was used in western blot to investigate the role of growth hormone in the Bursa
Chicken / 1:1000	General and comparative endocrinology (2015; 224: 148) "Direct antiapoptotic effects of growth hormone are mediated by PI3K/Akt pathway in the chicken bursa of Fabricius." Author(s):Luna-Acosta JL,Alba-Betancourt C,Martínez-Moreno CG,Ramírez C,Carranza M,Luna M,Arámburo C PubMed Article URL:http://dx.doi.org/10.1016/j.ygcen.2015.07.010
Human / 1:20	13-8800 was used in immunohistochemistry to study the role of Epstein-Barr virus infection in lymphomas in the nasal cavity.
	Human pathology (2002; 33: 153) "Lymphomas of the oral cavity: histology, immunologic type, and incidence of Epstein-Barr virus infection." Author(s):Solomides CC,Miller AS,Christman RA,Talwar J,Simpkins H PubMed Article URL:http://dx.doi.org/10.1053/hupa.2002.30721
4 Immunohistochemistry	References
Species / Dilution	Summary
Not Applicable / 1:100	13-8800 was used in immunohistochemistry to study changes in the expression of apoptosis molecules and growth factors in rats after growth plate irradiation with or without radioprotectant
	The journal of histochemistry and cytochemistry: official journal of the Histochemistry Society (2004; 52: 157) "Temporal changes in PTHrP, Bcl-2, Bax, caspase, TGF-beta, and FGF-2 expression following growth plate irradiation with or without radioprotectant." Author(s):Damron TA,Mathur S,Horton JA,Strauss J,Margulies B,Grant W,Farnum CE,Spadaro JA PubMed Article URL:http://dx.doi.org/10.1177/002215540405200203
Rat / 1:200	13-8800 was used in immunohistochemistry to study the effect of zinc deficiency on airway epithelium
	Biometals: an international journal on the role of metal ions in biology, biochemistry, and medicine (2014; 27: 305) "Cytoprotective mechanisms in rats lung parenchyma with zinc deprivation." Author(s):Biaggio VS,Alvarez-Olmedo DG,Perez Chaca MV,Salvetti NR,Valdez SR,Fanelli MA,Ortega HH,Gomez NN, Gimenez MS PubMed Article URL:http://dx.doi.org/10.1007/s10534-014-9713-z
Bacteria / Not Cited Human / Not Cited	Proceedings of the National Academy of Sciences of the United States of America (2004; 101: 6152) "Targeting and crossing of the human maternofetal barrier by Listeria monocytogenes: role of internalin interaction with trophoblast E-cadherin." Author(s):Lecuit M,Nelson DM,Smith SD,Khun H,Huerre M,Vacher-Lavenu MC,Gordon JI,Cossart P PubMed Article URL:http://dx.doi.org/10.1073/pnas.0401434101
Not Applicable / Not Cited	13-8800 was used in immunohistochemistry to examine the earlier sequential relationship of proliferative, growth factor, and histomorphometric changes after irradiation leading to the 1-week nadir
	Clinical orthopaedics and related research (2004; : 233) "Decreased proliferation precedes growth factor changes after physeal irradiation." Author(s):Damron TA,Horton JA,Naqvi A,Margulies B,Strauss J,Grant W,Farnum CE,Spadaro JA PubMed Article URL:http://dx.doi.org/10.1097/01.blo.0000129344.28160.9d

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0 1 /5" /	
Species / Dilution	Summary
	13-8800 was used in immunohistochemistry - paraffin section to study the contribution of breast cysts to breast cancer
Not Applicable / Not Cited	Breast cancer research and treatment (2002; 75: 213) "Microcysts and breast cancer: a study of biological markers in archival biopsy material." Author(s):Tran DD,Lawson JS PubMed Article URL:http://dx.doi.org/10.1023/a:1019969730552
Not Applicable / 1:50	13-8800 was used in immunohistochemistry - paraffin section to compare tumors involving endometrium and ovary and metastatic endometrial tumors
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	13-8800 was used in immunohistochemistry - paraffin section to characterize cribriform-morular variant of papillary thyroic carcinoma
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Journal of the American College of Surgeons (2014; 219: 977)

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