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Anti-Bcl-2/BCL2 Antibody Picoband®

Catalog Number: A00040-2

About BCL2

Immunoreactive BCL2 protein in the neoplastic cells of almost all follicular lymphomas whereas no BCL2 protein was detected in follicles affected by nonneoplastic processes or in normal lymphoid tissue. Every tumor with molecular-genetic evidence of t (14;18) translocation expressed detectable levels of BCL2 protein, regardless of whether the breakpoint was located in or at a distance from the BCL2 gene. Overexpression of BCL2 blocks the apoptotic death of a pro-B-lymphocyte cell line.

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Overview

Product Name	Anti-Bcl-2/BCL2 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-Bcl-2/BCL2 Antibody Picoband® catalog # A00040-2. Tested in ELISA, Flow Cytometry, IF, ICC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, Flow Cytometry, IF, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P10415

Technical Details

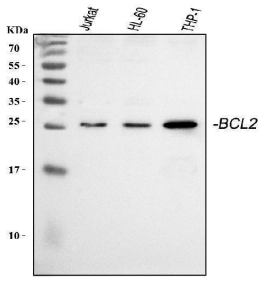
Immunogen	E. coli-derived human Bcl-2 recombinant protein (Position: Q118-E165).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for ICC.

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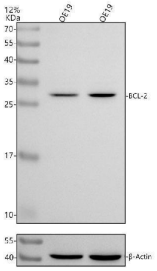
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x10^6 cells, Human Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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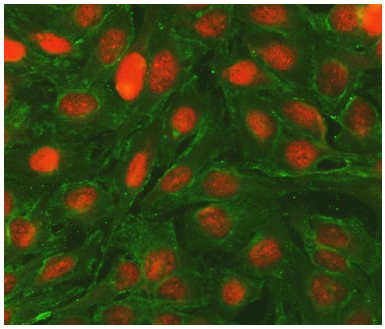
Anti-Bcl-2/BCL2 Antibody Picoband® (A00040-2) Images



Western blot analysis of BCL2 using anti-BCL2 antibody (A00040-2). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Jurkat whole cell lysates, Lane 2: human HL-60 whole cell lysates, Lane 3: human THP-1 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-BCL2 antigen affinity purified polyclonal antibody (Catalog # A00040-2) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for BCL2 at approximately 26 kDa. The expected band size for BCL2 is at 26 kDa.



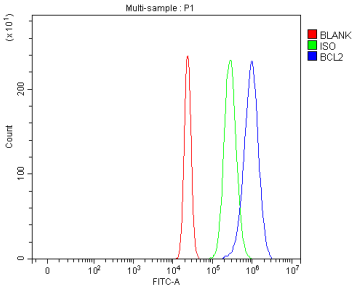
Western blot analysis of Bcl-2 using anti-Bcl-2 antibody (A00040-2). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: huamn OE19 whole cell lysates, Lane 2: human OE19 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Bcl-2 antigen affinity purified monoclonal antibody (A00040-2) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween-20 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054) at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for Bcl-2 at approximately ~30 kDa. The expected band size for Bcl-2 is at ~26 kDa.



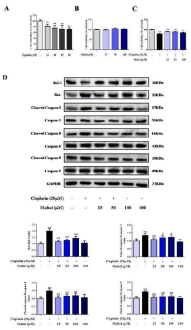
IF analysis of BCL2 and Tubulin alpha using anti-BCL2 antibody (A00040-2) and anti-Tubulin alpha antibody (M03989-3). BCL2 and Tubulin alpha were detected in immunocytochemical section of U20S cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-BCL2 antibody (A00040-2) and mouse anti-Tubulin alpha Antibody (M03989-3) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) and DyLight®488 Conjugated Goat Anti-Mouse IgG (BA1126) were used as secondary antibody at 1:100 dilution and incubated for 30

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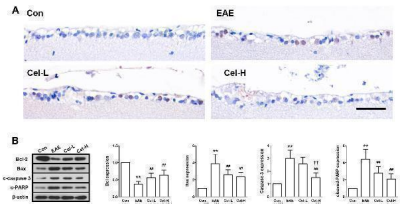
minutes at 37°C. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



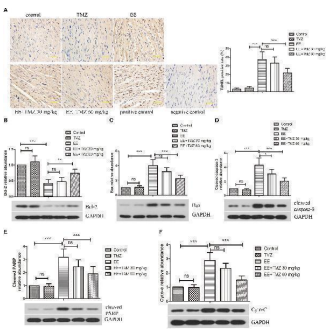
Flow Cytometry analysis of U20S cells using anti-BCL2 antibody (A00040-2). Overlay histogram showing U20S cells stained with A00040-2 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-BCL2 Antibody (A00040-2, 1 ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Protective effects of maltol on cisplatin-induced injury in HEK293 cells. (A) The cytotoxic effects of cisplatin on HEK293 cells. (B) Effect of maltol on the activity of normal cells. (C) The viability of HEK293 cells incubated with maltol after cisplatin exposure. Effects of maltol on the protein expression levels of Bcl-2, Bax and caspase 3, 8, 9 as well as GAPDH protein was used as a loading control. (D) Cells were used for western blot analysis of indicated proteins (upper panel). Column chart represents relative protein levels compared with the control group after normalization to GAPDH levels (lower panel) Values are expressed as mean ± S.D. n = 8. ** $p < 0.01$ vs . normal group; # $p < 0.05$, ## $p < 0.01$ vs . cisplatin group. Index in PubMed under a CC BY license. PMID: 30374107

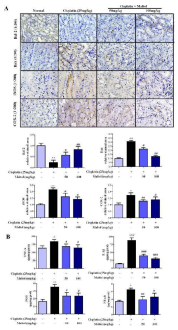


Celastrol attenuates ganglion cells apoptosis in the retina of EAE rats. Treatment of celastrol decreased the number of TUNEL-positive cells (A) , upregulated expression of Bcl-2 (B) and downregulated expression of Bax, cleaved-caspase 3 and cleaved-PARP. Scale bar: 100 um. Data were shown as mean ± SD, n = 5. ∗∗ $P < 0.01$ versus control group, ## $P < 0.01$ versus EAE group, †† $P < 0.01$ versus low dosage of celastrol group.Index in PubMed under a CC BY license. PMID: 28239352

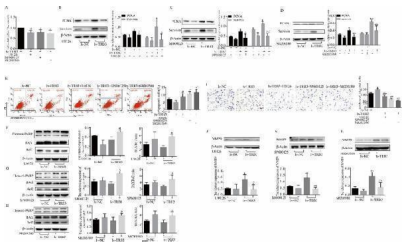


Trimetazidine inhibited EE-induced apoptosis of myocardial cells. (A) The apoptosis in myocardial tissues was evaluated by TUNEL staining. Scale bar is 50 um. Western blot analysis of the levels of apoptosis-related proteins B-cell lymphoma 2 (Bcl-2) (B) , Bcl-2-associated X protein (Bax) (C) , cleaved caspase-3 (D) , cleaved PARP (E) , and cytoplasmic cytochrome complex (Cytochrome c, Cyto-C) (F) in myocardial tissues. GAPDH was used as a loading control. Each value is shown as mean ± SD (n = 6). ∗ $P < 0.05$, ∗∗ $P < 0.01$, ∗∗∗ $P < 0.001$, versus the indicated group.Index in PubMed under a CC BY license. PMID: 30890937

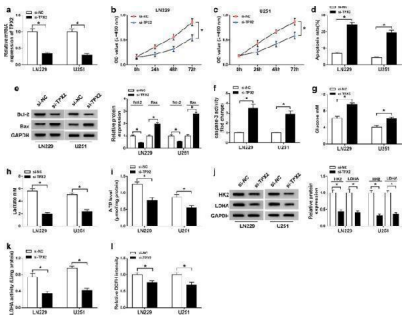
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Effects of maltol on the levels of inflammation cytokines in cisplatin-induced renal toxicity. (A) Effects of maltol on the positive expressions of Bax, Bcl-2, iNOS and COX-2 in renal tissues were examined by IHC in renal tissues (magnification × 200), And the column chart shows stained area, semiquantitative analysis of Bax, Bcl-2, iNOS and COX-2 expression in kidneys to IHC. (B) Inflammation cytokines level of TNF-alpha, IL-1beta, iNOS and NF-kappaB in serum of mice were measured by ELISA kits. All values were expressed as mean ± S.D. * $p < 0.05$, ** $p < 0.01$ vs . normal group; # $p < 0.05$, ## $p < 0.01$ vs . cisplatin group. Index in PubMed under a CC BY license. PMID: 30374107

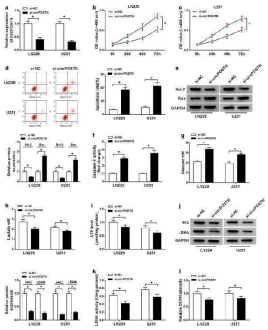


Inhibitors of ERK, JNK, and p38 MAPK reversed the effect of TRB3 overexpression on PASMC biological behavior. A The CCK-8 assay was used to evaluated the proliferation of TRB3-overexpressing cells after treating with U0126, SP600125, and SB203580. B – D Western blot analysis of PCNA expression in TRB3 overexpressing cells incubated with U0126, SP600125, or SB203580 for 12 h. E Cell apoptosis induced by U0126, SP600125 and SB203580 in TRB3-overexpressing cells was evaluated using flow cytometry, and the percentage of early apoptotic (Annexin V+/PI−) and late apoptotic (Annexin V+ /PI+) cells was analyzed. F – H Western blot analysis of the protein expression of PARP, BAX, and Bcl2 in TRB3-overexpressing cells incubated with U0126, SP600125, and SB203580 for 12 h. I Crystal violet staining is presented at × 200 magnification for the Transwell assay and the migrated cells were counted and analyzed. J – L Western blot analysis of MMP9 expression in TRB3-overexpressing cells incubated with U0126, SP600125, and SB203580 for 12 h. Data represent the mean ± SEM (n = 4). *$P < 0.05$ compared to normoxic PASMCs transfected with lv-NC. # $P < 0.05$ and ## $P < 0.01$ compared to PASMCs transfected with lv-TRB3. U0126, an ERK signaling inhibitor; SP600125, an JNK signaling inhibitor; SB203580, an p38 MAPK signaling inhibitor Index in PubMed under a CC BY license. PMID: 34906150

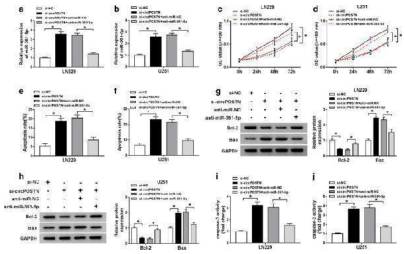


TPX2 regulated proliferation, apoptosis, and aerobic glycolysis in glioma cells. a – l LN229 and U251 cells were introduced with si-NC or si-TPX2. a The transfection efficiency of si-TPX2 was checked with RT-qPCR assay in LN229 and U251 cells. b , c The cell viability of LN229 and U251 cells was determined with MTT assay. d The apoptosis rate of transfected LN229 and U251 cells was represented by flow cytometry assay. e The western blot assay was used to assay the expression levels of Bcl-2 and Bax in LN229 and U251 cells. f The activity of caspase-3 was detected with a caspase-3 assay kit. g – i The glucose, lactate, and ATP production levels were shown. j The protein expression levels of HK2 and LDHA were estimated by western blot assay in LN229 and U251 cells. k , l LDHA enzyme activity and ROS content were evaluated in LN229 and U251 cells post-transfection. * $P < 0.05$ Index in PubMed under a CC BY license. PMID: 32774168

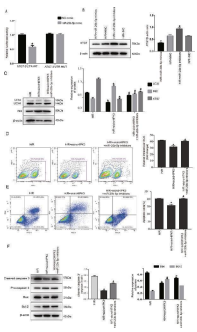
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The influences of circPOSTN silencing on proliferation, apoptosis and aerobic glycolysis of glioma cells. a – l LN229 and U251 cells were transfected with si-circPOSTN or si-NC. a The interference efficiency of si-circPOSTN was analyzed with RT-qPCR assay in LN229 and U251 cells. b , c Effect of circPOSTN silencing on the cell viability of LN229 and U251 cells was assessed with MTT assay. d The apoptosis rate was computed with flow cytometry assay in transfected LN229 and U251 cells. e The western blot assay showed the expression levels of Bcl-2 and Bax in LN229 and U251 cells. f The caspase-3 activity was measured with a caspase-3 assay kit. g – i The concentration of glucose and lactate in the culture medium, as well as ATP production level were measured with a series of kits, respectively. j The protein expression levels of HK2 and LDHA were determined with western blot assay in transfected LN229 and U251 cells. k – l LDHA enzyme activity and ROS accumulation were evaluated in LN229 and U251 cells post-transfection with lactate dehydrogenase activity detection kit and reactive oxygen species assay kit, respectively. * $P < 0.05$ Index in PubMed under a CC BY license. PMID: 32774168

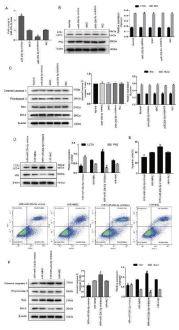


Knockdown of circPOSTN mediated-effects on proliferation and apoptosis of glioma cells could be eliminated by silencing miR-361-5p. a – j LN229 and U251 cells were transfected with si-NC, si-circPOSTN, si-circPOSTN + anti-miR-NC, or si-circPOSTN + anti-miR-361-5p. a , b The relativity expression level of miR-361-5p was analyzed with RT-qPCR assay in LN229 and U251 cells. c , d MTT assay was administrated to assess cell viability of LN229 and U251 cells after transfection. e , f The apoptosis of transfected LN229 and U251 cells was monitored by flow cytometry. g , h The western blot assay was employed to show the expression levels of Bcl-2 and Bax in LN229 and U251 cells. i , j The caspase-3 activity was examined by caspase-3 assay kit. * $P < 0.05$ Index in PubMed under a CC BY license. PMID: 32774168

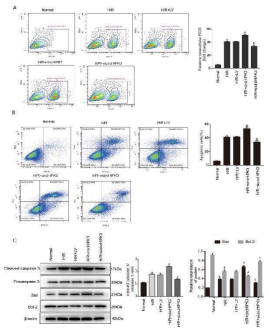


CircHIPK3 regulates autophagy and apoptosis via the CircHIPK3/miR-20b-5p/ATG7 axis. A Luciferase reporter assay showed that miR-20b-5p mimics directly binds to the 3′-UTR of ATG7 and inhibits luciferase activity. * $P < 0.05$ compared with the NC-mimics group. B ATG7 protein expression was detected by western blotting. n = 3. * $P < 0.05$ compared with the MNC group. # $P < 0.05$ compared with the INC group. C The protein expression levels of LC3-II, P62, and ATG7 were measured by western blotting. n = 3. D The intracellular ROS level was detected by flow cytometry. n = 3. E Annexin V-FITC/PI flow cytometry was used to evaluate apoptosis under different treatment conditions. n = 3. F Apoptosis-related proteins, including procaspase-3, cleaved caspase-3, Bax, and Bcl-2, were detected by western blotting. n = 3. * $P < 0.05$ compared with the H/R group. # $P < 0.05$ compared with the H/R + sicircHIPK3 group. Index in PubMed under a CC BY license. PMID: 33824287

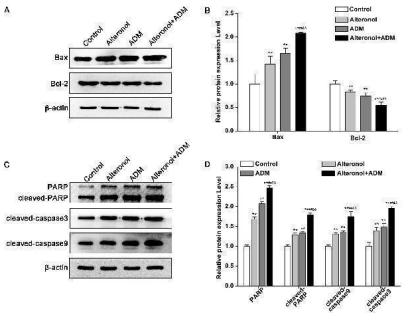
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MiR-20b-5p inhibits autophagy and apoptosis of cardiomyocytes under H/R conditions. A Transfection efficacy of miR-20b-5p mimics and miR-20b-5p inhibitors in cardiomyocytes. B Western blot showed the effect of transfection of miR-20b-5p mimics and miR-20b-5p inhibitors on the expression of LC3II and P62 in normal cardiomyocytes. n = 3. C Western blot showed the effect of transfection of miR-20b-5p mimics and miR-20b-5p inhibitors on the expression of apoptosis-related proteins, including procaspase-3, cleaved caspase-3, Bax, and Bcl-2 in normal cardiomyocytes. n = 3. D Western blot showed the effects of miR-20b-5p mimics and miR-20b-5p inhibitor transfection on the expression of LC3II and P62 in cardiomyocytes under H/R conditions. n = 3. E Annexin V-FITC/PI flow cytometry was used to evaluate the effect of miR-20b-5p mimics and miR-20b-5p inhibitors on cardiomyocyte apoptosis under H/R conditions. n = 3. F Western blot analyzed the expression of apoptosis-related proteins, including procaspase-3, cleaved caspase-3, Bax, and Bcl-2 in cardiomyocytes under H/R conditions by miR-20b-5p mimics and miR-20b-5p inhibitors transfection. n = 3. * $P < 0.05$ compared with the mimics-NC (MNC) group. # $P < 0.05$ compared with the inhibitors-NC (INC) group. Index in PubMed under a CC BY license. PMID: 33824287



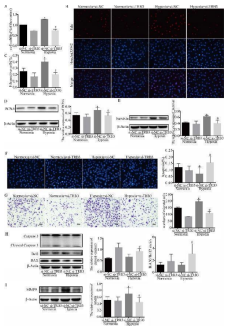
CircHIPK3 promotes H/R-induced cardiomyocyte apoptosis. A The intracellular ROS level was detected by flow cytometry. n = 3. B Annexin V-FITC/PI flow cytometry was used to evaluate the effect of circHIPK3 on cardiomyocyte apoptosis. n = 3. C Apoptosis-related proteins, including procaspase-3, cleaved caspase-3, Bax, and Bcl-2, were detected by western blotting. n = 3. * $P < 0.05$ compared with the normal group. # $P < 0.05$ compared with the H/R group. Index in PubMed under a CC BY license. PMID: 33824287



The effect of the combination of alteronol and ADM on protein levels of apoptosis-related molecules in 4T1 cells. (A) The protein levels of Bax and Bcl-2 were measured by western blot. (B) Quantitative analysis of Bax and Bcl-2 protein levels in 4T1 cells after treatment with alteronol and/or ADM. (C) The protein levels of cleaved PARP, cleaved caspase-9, and cleaved caspase-3 were examined by western blot. (D) Quantitative analysis of cleaved PARP, cleaved caspase-9, and cleaved caspase-3 protein levels after the indicated treatments. ∗ $P < 0.05$, ∗∗ $P < 0.01$ vs. control group. # $P < 0.05$, ## $P < 0.01$ vs. alteronol group. & $P < 0.05$, && $P < 0.01$ vs. ADM group. All data are expressed as mean ± SD of three independent experiments.Index in PubMed under a CC BY license. PMID: 31001113

Effect of TRB3 knockdown on proliferation, migration, and apoptosis of hypoxic PASMCs. PASMCs were transfected with lentiviral vectors encoding short hairpin RNAs targeting against rat TRB3(si-TRB3) or negative control(si-NC) for further analysis. A CCK-8 assays were performed to test cell

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viability after TRB3 knockdown in hypoxic PASMCs. B The EdU proliferation assay was used to measure cell proliferation. All images are × 400 magnification. C EdU-positive cells were analyzed. D and E The expression of PCNA and Survivin was examined by western blot, and the gray value was quantified by ImageJ software. F Cell apoptosis was evaluated by Hoechst 33342 staining, and the percentage of apoptosis was quantified. G Crystal violet staining of PASMCs is presented at × 200 magnification for the Transwell assay, and the migrated cells were counted manually. H Apoptosis-related protein expression was evaluated and quantification of the analysis is shown. I The expression of MMP9 was evaluated. Data represent the mean ± SEM (n = 4). *P < 0.05 and **P < 0.01 compared to normoxic PASMCs transfected with si-NC. # P < 0.05 and ## P < 0.01 compared to hypoxic PASMCs transfected with si-TRB3. si-NC, lentiviral vectors encoding the negative control sequence; si-TRB3, lentiviral vectors encoding the short-hairpin RNAs against rat TRB3; PCNA, proliferating cell nuclear antigen; TRB3, Tribbles homolog 3; BAX, BCL2 associated X; Bcl2, B cell leukemia/lymphoma 2; MMP9, matrix metallopeptidase 9 Index in PubMed under a CC BY license. PMID: 34906150

242 Publications Citing This Product

1. PubMed ID: 10.1161/JAHA.117.005602, Reoxygenation Reverses Hypoxic Pulmonary Arterial Remodeling by Inducing Smooth Muscle Cell Apoptosis via Reactive Oxygen Species–Mediated Mitochondrial Dysfunction

2. PubMed ID: 10.1186/1749-8546-4-14, In vitro and in vivo antitumor effects of acetylshikonin isolated from Arnebia euchroma (Royle) Johnst (Ruanzicao) cell suspension cultures

3. PubMed ID: 10.1186/s12931-021-01908-4, TRB3 mediates vascular remodeling by activating the MAPK signaling pathway in hypoxic pulmonary hypertension

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