



碧云天生物技术/Beyotime Biotechnology
订货热线: 400-1683301 或 800-8283301
订货 e-mail: order@beyotime.com
技术咨询: info@beyotime.com
网址: http://www.beyotime.com

Bcl-2抗体(兔多抗)

产品编号	产品名称	包装
AB112	Bcl-2抗体(兔多抗)	>20次

产品简介:

来源	用途	交叉反应性	抗体识别位点	Bcl-2分子量
Rabbit	WB, IF, IHC, ICC,	H, M	Bcl-2 C-terminal	~28kD

WB, Western blot; IF, Immunofluorescence; IHC, Immunohistochemistry; ICC, Immunocytochemistry; FC, Flow Cytometry.

H, Human; M, Mouse.

- 本Bcl-2抗体(Bcl-2 antibody)为进口分装,用人工合成的Bcl-2羧基端(carboxy-terminal)的一段多肽进行适当修饰后免疫rabbit,然后用protein A和抗原多肽亲和柱经过两步纯化而得到的高纯度抗体。
- 本Bcl-2抗体可以识别内源性水平的Bcl-2, 在生理水平检测时未发现和其它Bcl-2家族蛋白有交叉反应。
- Bcl-2是一种抗凋亡蛋白, 可以抑制很多凋亡诱导剂诱导的细胞色素c释放(cytochrome c release), 及后续的细胞凋亡。Bcl-2被推测可以影响线粒体的钙离子平衡(calcium homeostasis)和质子流(proton flux)。通常Bcl-2蛋白水平的上调被认为细胞的抗凋亡能力上调, 而Bcl-2蛋白水平的显著下降则可能导致细胞凋亡。
- 配套提供了Western一抗稀释液, 可以用于Western检测时的一抗稀释。
- 建议抗体使用时的稀释比例如下(实际使用时需根据抗原水平的高低作适当调整):

WB	IP	IF	IHC	ICC	FC	ELISA	ChIP
1:1000	-	1:100	1:250	1:100	1:150	-	-

- 本抗体如果用于常规的Western检测至少可以检测20次。

包装清单:

产品编号	产品名称	包装
AB112-1	Bcl-2抗体(兔多抗)	20μl
AB112-2	Western一抗稀释液	20ml
-	说明书	1份

保存条件:

Bcl-2抗体-20°C保存, Western一抗稀释液-20°C或4°C保存, 一年有效。Western一抗稀释液优先推荐4°C保存, 长期不使用可以考虑-20°C保存, 但冻融可能会导致出现轻微的浑浊和少量不溶物。

注意事项:

- 如果本抗体用于Western blot (WB)、免疫荧光(IF)、免疫细胞化学(ICC)等实验, 请注意回收使用过的稀释抗体。回收的抗体通常至少可以重复使用5-10次。稀释后的抗体, 包括已经使用过的稀释抗体, 请4°C保存。
- 回收后重复使用的抗体, 使用方法同新鲜稀释的抗体。如果在重复使用过程中发现抗体出现轻微混浊现象, 可以10,000g离心1-3分钟, 取上清用于后续检测。如果回收的抗体出现明显的絮状物或长霉长菌等情况, 则可以考虑废弃该抗体。
- 提供的Western一抗稀释液也可以用于免疫荧光(IF)、免疫组化(IHC)、免疫细胞化学(ICC)等适当用途。如果希望获得最佳的检测效果, 请考虑使用上述检测专用的一抗稀释液。
- 本产品仅限于专业人员的科学研究用, 不得用于临床诊断或治疗, 不得用于食品或药品, 不得存放于普通住宅内。
- 为了您的安全和健康, 请穿实验服并戴一次性手套操作。

使用说明:

1. Western检测:

- A. 按照1:1000用碧云天提供的Western一抗稀释液稀释抗体。
- B. 按照推荐的稀释比例用碧云天提供的Western一抗稀释液稀释抗体。
- C. 把经过封闭的蛋白膜与稀释好的一抗4°C缓慢摇动过夜或室温缓慢摇动2小时, 确保稀释的抗体至少能在摇动的瞬间覆盖蛋白膜。
- D. 回收稀释的一抗, 4°C保存以备下次继续使用。
- E. 按照Western的实验步骤进行后续的洗涤、二抗孵育、洗涤和检测等操作。具体操作可以参考如下网页:

2. 免疫染色：

可以使用碧云天生产的免疫染色一抗稀释液(P0103)稀释抗体，使用后注意回收稀释好的一抗，具体操作可以参考如下网页：<http://www.beyotime.com/support/immunol-staining.htm>

3. 其它实验操作请自行参考适当的 protocol 进行。

使用本产品的文献：

1. Wang W, Zeng C, Feng Y, Zhou F, Liao F, Liu Y, Feng S, Wang X . The size-dependent effects of silica nanoparticles on endothelial cell apoptosis through activating the p53-caspase pathway. Environ Pollut. 2018 Feb;233:218-225.
2. Lan Jin, Yunhe Chen, Dan Cheng, Zhikai He, Xinyi Shi, Boyu Du, Xueyan Xi, Yujing Gao, Yang Guo . YAP inhibits autophagy and promotes progression of colorectal cancer via upregulating Bcl-2 expression Cell Death Dis. 2021 May 7;12(5):457.
3. Jing Zhao, Guorong Wang, Kaitao Han, Yang Wang, Lin Wang, Jinxia Gao, Sen Zhao, Gang Wang, Shengyang Chen, An Luo, Jianlin Wu, Guangzhi Wang . Mitochondrial PKM2 deacetylation by procyanidin B2-induced SIRT3 upregulation alleviates lung ischemia/reperfusion injury Cell Death Dis. 2022 Jul 11;13(7):594.
4. Juncheng Liu, Fang Wang, Zebin Weng, Xiaonan Sui, Yong Fang, Xiaozhi Tang, Xinchun Shen . Soybean-derived miRNAs specifically inhibit proliferation and stimulate apoptosis of human colonic Caco-2 cancer cells but not normal mucosal cells in culture Genomics. 2020 Sep;112(5):2949-2958.
5. Zhilei Mao, Mengmeng Yao, Yaqi Li, Ziqiang Fu, Shushu Li, Lina Zhang, Zhu Zhou, Qiusha Tang, Xiumei Han, Yankai Xia . miR-96-5p and miR-101-3p as Potential Intervention Targets to Rescue TiO₂ NP-induced Autophagy and Migration Impairment of Human Trophoblastic Cells BIOMATER SCI-UK. 2018 Nov 20;6(12):3273-3283.
6. Zhang L, Liu X, Liu J, Ma X, Zhou Z, Song Y, Cao B . miR-26a promoted endometrial epithelium cells (EECs) proliferation and induced stromal cells (ESCs) apoptosis via the PTEN-PI3K/AKT pathway in dairy goats. J Cell Physiol. 2018 Jun;233(6):4688-4706.
7. Zhang L, Liu X, Ma X, Liu Y, Che S, Cui J, An X, Cao B, Song Y . Testin was regulated by circRNA3175-miR182 and inhibited endometrial epithelial cell apoptosis in pre-receptive endometrium of dairy goats. J Cell Physiol. 2018 Oct;233(10):6965-6974.
8. Song F, Zhang L, Yu H, Lu R, Bao J, Tan C, Sun Z . The mechanism underlying proliferation-inhibitory and apoptosis-inducing effects of curcumin on papillary thyroid cancer cells. Food Chemistry. 2012 May;132(1):43-50.
9. Xin-Can Zhao, Li Zhang, Hui-Xin Yu, Zhen Sun . Curcumin protects mouse neuroblastoma Neuro-2A cells against hydrogen-peroxide-induced oxidative stress. Food Chemistry. 2012 Nov;129(2):387394.
10. Jin M, Zhang L, Yu H, Meng J, Sun Z, Lu R . Protective effect of whey protein hydrolysates on H2O₂-induced PC12 cells oxidative stress via a mitochondria-mediated pathway. Food Chemistry. 2013 Nov;41(2):847-52.
11. Zheng-Hao Zhang, Zi-Guan Zhang, Min-Wei Chen, Ying Yang, Run-Jing Li, Jia-Jia Xu, Cui Yang, Yu-Ying Li, Hong-Wei Chen, Shi-Xiao Liu, Yan-Ling Li, Ping Luo, Yi-Jiang Liu, Wen-Bo Chen, Zhong-Gui Shan, Zheng-Rong Huang . Inhibition of GSDMD Activates Poly(ADP-ribosylation) and Promotes Myocardial Ischemia-Reperfusion Injury Oxid Med Cell Longev. 2022 Jun 24;2022:1115749.
12. Liu RT, Zou LB, Lü QJ . Liquiritigenin inhibits Abeta(25-35)-induced neurotoxicity and secretion of Abeta(1-40) in rat hippocampal neurons. Acta Pharmacol Sin. 2009 Jul;30(7):899-906.
13. Zhao F, He EQ, Wang L, Liu K . Anti-tumor activities of andrographolide, a diterpene from Andrographis paniculata, by inducing apoptosis and inhibiting VEGF level. J Asian Nat Prod Res. 2008 May-Jun;10(5-6):467-73.
14. Sun ZQ, Deng CS, Xu SY, Du Y . Antitumor bioactivity of adenovirus-mediated p27^{mt} in colorectal cancer cell line SW480. WORLD J GASTROENTERO. 2008 Oct 14;14(38):5827-33.
15. K Xu, Q Ding, Z Fang, J Zheng, P Gao, Y Lu and Y Zhang . Silencing of HIF-1 α suppresses tumorigenicity of renal cell carcinoma through induction of apoptosis. Cancer Gene Therapy. 2009:1-11.
16. Li Y, Li Q, Wang Z, Liang D, Liang S, Tang X, Guo L, Zhang R, Zhu D . 15-HETE suppresses K⁺ channel activity and inhibits apoptosis in pulmonary artery smooth muscle cells. Apoptosis. 2009 Jan;14(1):42-51.
17. Zhang M, Zhang H, Sun C, Shan X, Yang X, Li-Ling J, Deng Y . Targeted constitutive activation of signal transducer and activator of transcription 3 in human hepatocellular carcinoma cells by cucurbitacin B. CANCER CHEMOTH PHARM. 2009 Mar;63(4):635-42.
18. Xia M, Bian M, Yu Q, Liu J, Huang Y, Jin X, Lu S, Yu M, Huang F . Cold water stress attenuates dopaminergic neurotoxicity induced by 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine in mice. ACTA BIOCH BIOPH SIN. 2011 Jun;43(6):448-54.
19. Gong L, Liu FQ, Wang J, Wang XP, Hou XG, Sun Y, Qin WD, Wei SJ, Zhang Y, Chen L, Zhang MX . Hyperglycemia induces apoptosis of pancreatic islet endothelial cells via reactive nitrogen species-mediated Jun N-terminal kinase activation. BBA-BIOMEMBRANES. 2011 Jun;1813(6):1211-9.
20. Li Q, Qiu W, Zhu Q, Zu Y, Deng X, Zhao T, Jiang C, Zhang L . Camptothecin-20(s)-O-[N-(3' α ,12' α -dihydroxy-24'-carbonyl-5' β -cholan)]-lysine, a novel camptothecin analogue, induces apoptosis towards hepatocellular carcinoma SMMC-7721 cells. Molecules. 2011 Sep 13;16(9):7803-14.
21. Khan M, Ding C, Rasul A, Yi F, Li T, Gao H, Gao R, Zhong L, Zhang K, Fang X, Ma T . Isoalantolactone induces reactive oxygen species mediated apoptosis in pancreatic carcinomaPANC-1 cells. Int J Biol Sci. 2012;8(4):533-47.
22. Ding C, Khan M, Zheng B, Yang B, Zhong L, Ma T . Casticin induces apoptosis and mitotic arrest in pancreatic carcinoma PANC-1 cells. AFR J PHARM PHARMACO. 2012 Feb;6(6):412-18.
23. Li Z, Pang L, Fang F, Zhang G, Zhang J, Xie M, Wang L . Resveratrol attenuates brain damage in a rat model of focal cerebral ischemia via up-regulation of hippocampal Bcl-2. Brain Research. 2012 April;1450:116-24.
24. Gao Z, Kang X, Hu J, Ju Y, Xu C . Induction of apoptosis with mitochondrial membrane depolarization bya glycyrrhetic acidderivative in human leukemia K562 cells. Cytotechnology. 2012 Aug;64(4):421-8.
25. Muhammad Khan, Javed Iqbal Qazi, Azhar Rasul, Zheng Y, Ma T . Evodiamine induces apoptosis in pancreatic carcinoma PANC-1 cells via NF κ B inhibition. BANGL J PHARMACOL. 2013; 8: 8-14.
26. Cao ZH, Yin WD, Zheng QY, Feng SL, Xu GL, Zhang KQ . Caspase-3 is Involved in IFN- γ and TNF- α -Mediated MIN6 Cells Apoptosis via NF- κ B/Bcl-2 Pathway. Cell Biochem Biophys. 2013;67(3):1239-48.

27. Wu L, Xi Z, Guo R, Liu S, Yang S, Liu D, Dong S, Guo D. . Exogenous ARC down-regulates caspase-3 expression and inhibits apoptosis of broiler chicken cardiomyocytes exposed to hydrogen peroxide. *Avian Pathol.* 2013 Feb;42(1):32-7.
28. Liu Z, Yu Y, Yuan Z, Zhang F, Jing C. . Dexamethasone-induced apoptosis in PC12 cells. *Toxin Reviews.* 2013 May;32(2):34-8.
29. Sun B, Cai Y, Li Y, Li J, Liu K, Li Y, Yang Y. . The nonstructural protein NP1 of human bocavirus 1 induces cell cycle arrest and apoptosis in HeLa cells. *Virology.* 2013 May 25;440(1):75-83.
30. Xia L, Huang Q, Nie D, Shi J, Gong M, Wu B, Gong P, Zhao L, Zuo H, Ju S, Chen J, Shi W. . PAX3 is overexpressed in human glioblastomas and critically regulates the tumorigenicity of glioma cells. *Brain Res.* 2013 Jul 12;1521:68-78.
31. Li J, Xu L, Ye J, Li X, Zhang D, Liang D, Xu X, Qi M, Li C, Zhang H, Wang J, Liu Y, Zhang Y, Zhou Z, Liang X, Li J, Peng L, Zhu W, Chen YH. . Aberrant dynamin 2-dependent Na⁺/H⁺ exchanger-1 trafficking contributes to cardiomyocyte apoptosis. *J Cell Mol Med.* 2013 Sep;17(9):1119-27.
32. Zamani M, Soleimani M, Golab F, Mohamadzadeh F, Mehdizadeh M, Katebi M. . NeuroProtective effects of adenosine receptor agonist coadministration with ascorbic acid on CA1 hippocampus in a mouse model of ischemia reperfusion injury. *Metab Brain Dis.* 2013 Sep;28(3):367-74.
33. Bai F, Ni B, Liu M, Feng Z, Xiong Q, Shao G. *Vet Microbiol.* 2015 Jan 30;175(1):58-67.
34. Zhang F, Hu Y, Xu X, Zhai X, Wang G, Ning S, Yao J, Tian X. . Icariin protects against intestinal ischemia-reperfusion injury. *J Surg Res.* 2015 Mar;194(1):127-38.
35. Huang G, Mao J, Ji Z, Ailati A. *Food Funct.* 2015 Mar;6(3):765-71.
36. L Chen, R Zeng, Y Zhuang. . In vitro Anti-Gastric Tumor Activities and Possible Mechanisms of Action of Paederosidic Acid from Paederia scandens (Lour) Merrill. *Tropical Journal of Pharmaceutical Research.* 2015 May;14(5):795-800.
37. Wang P, Peng X, Wei ZF, Wei FY, Wang W, Ma WD, Yao LP, Fu YJ, Zu YG. . Geraniin exerts cytoprotective effect against cellular oxidative stress BBA-BIOMEMBRANES. 2015 Sep; 1850(9):1751-61.
38. Dong M, Lu Y, Zou Z, Yang H. *Life Sci.* 2015 Oct 1;138:64-71.
39. Liu MH, Lin XL, Guo DM, Zhang Y, Yuan C, Tan TP, Chen YD, Wu SJ, Ye ZF, He J. . Resveratrol protects cardiomyocytes from doxorubicin-induced apoptosis through the AMPK/P53pathway. *Mol Med Rep.* 2016 Feb;13(2):1281-6.
40. Ding L, Wu J, Li D, Wang H, Zhu B, Lu W, Xu G. . Effects of CCN3 on rat cartilage endplate chondrocytes cultured under serum deprivation in vitro. *Mol Med Rep.* 2016 Mar;13(3):2017-22.
41. Zhang LI, Wang C, Liu S, Zhao Y, Liu C, Guo Z. . Prognostic significance of Dicer expression in hepatocellular carcinoma. *Oncol Lett.* 2016 Jun;11(6):3961-6.
42. Yu XB, Chen XH, Ling F, Hao K, Wang GX, Zhu B. . Moroxydine hydrochloride inhibits grass carp reovirus replication and suppresses apoptosis in Ctenopharyngodon idella kidney cells. *ANTIVIR RES.* 2016 Jul;131:156-65.
43. Yao J, Xie J, Xie B, Li Y, Jiang L, Sui X, Zhou X, Pan H, Han W. . Therapeutic effect of hydroxychloroquine on colorectal carcinogenesis in experimental murine colitis. *Biochem Pharmacol.* 2016 Sep 1;115:51-63.
44. Peng JY, Gao KX, Xin HY, Han P, Zhu GQ, Cao BY. . Molecular cloning, expression analysis, and function of decorin in goat ovarian granulosa cells. *DOMEST ANIM ENDOCRIN.* 2016 Oct;57:108-16.
45. Peng X, Gan J, Wang Q, Shi Z, Xia X. . 3-Monochloro-2-propanediol (3-MCPD) induces apoptosis via mitochondrial oxidative phosphorylationsystem impairment and the caspase cascade pathway. *Toxicology.* 2016 Nov 30;372:1-11.
46. Chen P, He D, Zhang Y, Yang S, Chen L, Wang S, Zou H, Liao Z, Zhang X, Wu M. . Sargassum fusiforme polysaccharides activate antioxidant defense by promoting Nrf2-dependent cytoprotection and ameliorate stress insult during aging. *Food Funct.* 2016 Nov 9;7(11):4576-88.
47. Bao ZQ, Liao TT, Yang WR, Wang Y, Luo HY, Wang XZ. . Heat stress-induced autophagy promotes lactate secretion in cultured immature boar Sertoli cells by inhibiting apoptosis and driving SLC2A, LDHA, and SLC16A1 expression. *Theriogenology.* 2017 Jan 1;87:339-48.
48. Sun XF, Li YP, Pan B, Wang YF, Li J, Shen W. . Molecular regulation of miR-378 on the development of mouse follicle and the maturation of oocyte in vivo. *Cell Cycle.* 2018;17(18):2230-2242.
49. Dou C, Han M, Zhang B, Sun L, Jin X, Li T. . Chrysotoxene induces apoptosis of human hepatoblastoma HepG2 cells in vitro and in vivo via activation of the mitochondria-mediated apoptotic signaling pathway. *Oncol Lett.* 2018 Apr;15(4):4611-4618.
50. Shang JL, Cheng Q, Duan SJ, Li L, Jia LY. . Cognitive improvement following ischemia/reperfusion injury induced by voluntary running-wheel exercise is associated with LncMALAT1-mediated apoptosis inhibition. *Int J Mol Med.* 2018 May;41(5):2715-2723.
51. Sun H, Zhu Z, Tang Y, Ren Y, Song Q, Tang Y, Zhang Y. . Structural characterization and antitumor activity of a novel Se-polysaccharide from selenium-enriched Cordyceps gunnii. *Food Funct.* 2018 May 23;9(5):2744-2754.
52. Chen Y, Zhuang H, Chen X, Shi Z, Wang X. . Spermidine-induced growth inhibition and apoptosis via autophagic activation in cervical cancer. *Oncol Rep.* 2018 Jun;39(6):2845-2854.
53. Zhang L, Cheng X, Xu S, Bao J, Yu H. . Curcumin induces endoplasmic reticulum stress-associated apoptosis in human papillary thyroid carcinoma BCPAP cells via disruption of intracellular calcium homeostasis. *MEDICINE.* 2018 Jun;97(24):e11095.
54. Chu M, Wang T, Sun A, Chen Y. . Nimesulide inhibits proliferation and induces apoptosis of pancreatic cancer cells by enhancing expression of PTEN. *Exp Ther Med.* 2018 Jul;16(1):370-376.
55. Yu F, Zhang Y, Ye L, Tang Y, Ding G, Zhang X, Yang Z. . A novel anti-proliferative pentapeptide (ILYMP) isolated from Cyclina sinensis protein hydrolysate induces apoptosis of DU-145 prostate cancer cells. *Mol Med Rep.* 2018 Jul;18(1):771-778.
56. Kang J, Jia Z, Ping Y, Liu Z, Yan X, Xing G, Yan W. . Testosterone alleviates mitochondrial ROS accumulation and mitochondria-mediated apoptosis in the gastric mucosa of orchectomized rats. *Arch Biochem Biophys.* 2018 Jul 1;649:53-59.
57. Cheng SF, Qin XS, Han ZL, Sun XF, Feng YN, Yang F, Ge W, Li L, Zhao Y, De Felici M, Zou SH, Zhou Y, Shen W. . Nicotine exposure impairs germ cell development in human fetal ovaries cultured in vitro. *AGING-US.* 2018 Jul 12;10(7):1556-1574.
58. Liu X, Zhang L, Liu Y, Cui J, Che S, An X, Song Y, Cao B. . Circ-8073 regulates CEP55 by sponging miR-449a to promote caprine endometrial epithelial cells proliferation via the PI3K/AKT/mTOR pathway. *BBA-MOL CELL RES.* 2018 Aug;1865(8):1130-1147.
59. Zhai QY, Ge W, Wang JJ, Sun XF, Ma JM, Liu JC, Zhao Y, Feng YZ, Dyce PW, De Felici M, Shen W. . Exposure to Zinc oxide nanoparticles during pregnancy induces oocyte DNA damage and affects ovarian reserve of mouse offspring. *AGING-US.* 2018 Aug 28;10(8):2170-2189.
60. Dong J, Geng J, Tan W. . MiR-363-3p suppresses tumor growth and metastasis of colorectal cancer via targeting SphK2. *Biomed Pharmacother.* 2018 Sep;105:922-931.
61. Yang Y, Wu JJ, Cheng CD, Bao DJ, Dong YF, Li DX, Niu WX, Zhou CX, Niu CS. . G-protein-coupled receptor kinase-5 promotes glioblastoma

- progression by targeting the nuclear factor kappa B pathway. *Am J Transl Res.* 2018 Nov 15;10(11):3370-3384. eCollection 2018.
62. Zeng C, Feng Y, Wang W, Zhou F, Liao F, Liu Y, Feng S . The size-dependent apoptotic effect of titanium dioxide nanoparticles on endothelial cells by the intracellular pathway. *Environ Toxicol.* 2018 Dec;33(12):1221-1228.
 63. Fu B, Xi S, Wang Y, Zhai X, Wang Y, Gong Y, Xu Y, Yang J, Qiu Y, Wang J, Lu D, Huang S . The Protective Effects of Ciji-Hua'ai-Baosheng II Formula on Chemotherapy-Treated H22 Hepatocellular Carcinoma Mouse Model by Promoting Tumor Apoptosis. *Front Pharmacol.* 2019 Jan 8;9:1539.
 64. Huan Gao, Sixi Zhang, Tingting Hu, Xiaoyu Qu, Jinghui Zhai, Yueming Zhang, Lina Tao, Jianyuan Yin, Yanqing Song . Omeprazole Protects Against Cisplatin-Induced Nephrotoxicity by Alleviating Oxidative Stress, Inflammation, and Transporter-Mediated Cisplatin Accumulation in Rats and HK-2 Cells CHEM-BIOL INTERACT. 2019 Jan 5;297:130-140.
 65. Biqian Fu, Shengyan Xi, Yanhui Wang, Xiangyang Zhai, Yanan Wang, Yuewen Gong, Yangxinzi Xu, Jiaqi Yang, Yingkun Qiu, Jing Wang, Dawei Lu, Shuqiong Huang . The Protective Effects of Ciji-Hua'ai-Baosheng II Formula on Chemotherapy-Treated H 22 Hepatocellular Carcinoma Mouse Model by Promoting Tumor Apoptosis Front Pharmacol. 2019 Jan 8;9:1539.
 66. Zhang L, Pang Y, Cui X, Jia W, Cui W, Liu Y, Liu C, Li F . MicroRNA-410-3p upregulation suppresses proliferation, invasion and migration, and promotes apoptosis in rhabdomyosarcoma cells. *Oncol Lett.* 2019 Jul 18(1):936-943.
 67. Zheng J, Cheng X, Xu S, Zhang L, Pan J, Yu H, Bao J, Lu R . Dially trisulfide induces G2/M cell-cycle arrest and apoptosis in anaplastic thyroid carcinoma 8505C cells. *Food Funct.* 2019 Nov 1 10(11):7253-7261.
 68. Li JL, Wang JP, Chang H, Deng SM, Du JH, Wang XX, Hu HJ, Li DY, Xu XB, Guo WQ, Song YH, Guo Z, Sun MX, Wu YW, Liu SB . FEN1 inhibitor increases sensitivity of radiotherapy in cervical cancer cells. *CANCER MED-US.* 2019 Dec 8(18):7774-7780.
 69. Dai J, Ma J, Liao Y, Luo X, Chen G . Polydatin protects H9c2 cells from hypoxia-induced injury via up-regulating long non-coding RNA DGCR5. *Braz J Med Biol Res.* 2019 Dec 5 52(12):e8834.
 70. Anzana Parvin, Shuang-Li Hao, Fu-Qing Tan, Wan-Xi Yang . Inhibition of kinesin motor protein KIFC1 by AZ82 induces multipolar mitosis and apoptosis in prostate cancer cell Gene. 2020 Nov 15;760:144989.
 71. Shi Chen, Shiyi Tan, Shang Yang, Gang Chen, Li Zhu, Zhiqian Sun, Haibin Li, Sanqiao Yao . Nicotine induces apoptosis through exacerbation of blocked alveolar macrophage autophagic degradation in silicosis *Toxicol Lett.* 2020 Nov 1;334:94-101.
 72. Shichen Xu, Xian Cheng, Liying Wu, Jiangxia Zheng, Xiaowen Wang, Jing Wu, Huixin Yu, Jiandong Bao, Li Zhang . Capsaicin induces mitochondrial dysfunction and apoptosis in anaplastic thyroid carcinoma cells via TRPV1-mediated mitochondrial calcium overload *Cell Signal.* 2020 Nov;75:109733.
 73. Xiaoye Cheng, Zain-Ur Aabdin, Yan Wang, Nana Ma, Hongyu Dai, Xiaoli Shi, Xiangzhen Shen . Glutamine pretreatment protects bovine mammary epithelial cells from inflammation and oxidative stress induced by γ -d-glutamyl-meso-diaminopimelic acid (iE-DAP) *J Dairy Sci.* 2021 Feb;104(2):2123-2139.
 74. J J Zhang, L J Cai, K Pang, Y Dong, Z G Zhang, B B Li, R Li, C H Han . Paeonol inhibits proliferation and induces cell apoptosis of human T24 and 5637 bladder cancer cells in vitro and in vivo *Clin Transl Oncol.* 2021 Mar;23(3):601-611.
 75. Jingjing Zong, Hao Peng, Xin Qing, Zhe Fan, Wenjing Xu, Xuanlong Du, Ruihua Shi, Yewei Zhang . pH-Responsive Pluronic F127-Lenvatinib-Encapsulated Halogenated Boron-Dipyrrromethene Nanoparticles for Combined Photodynamic Therapy and Chemotherapy of Liver Cancer ACS Omega. 2021 Apr 30;6(18):12331-12342.
 76. Haiquan Zhu, Shaobo Zhu, Xiuchao Shang, Xiangsheng Meng, Sheng Jing, Li Yu, Yu Deng . Exhausting circ_0136474 and Restoring miR-766-3p Attenuate Chondrocyte Oxidative Injury in IL-1 β -Induced Osteoarthritis Progression Through Regulating DNMT3A *Front Genet.* 2021 May 21;12:648709.
 77. Chunsen Li, Zhenzhen Li, Lingxie Song, Lian Meng, Guixuan Xu, Haijun Zhang, Jianming Hu, Feng Li, Chunxia Liu . GEFT Inhibits Autophagy and Apoptosis in Rhabdomyosarcoma via Activation of the Rac1/Cdc42-mTOR Signaling Pathway *Front Oncol.* 2021 Jun 18;11:656608.
 78. Hong Zhang, Susu Wang, Yaqian Wang, Anxin Lu, Chunping Hu, Chonghuai Yan . DHA ameliorates MeHg-induced PC12 cell apoptosis by inhibiting the ROS/JNK signaling pathway *Mol Med Rep.* 2021 Aug;24(2):558.
 79. Yu Gu, Weiming Liu, Gaoqin Liu, Xin Li, Peirong Lu . Assessing the protective effects of cryptotanshinone on CoCl2-induced hypoxia in RPE cells *Mol Med Rep.* 2021 Oct;24(4):739.
 80. Shouzhu Xu, Jie Xu, Ting Hao, Yu Yan, Shihao Zhang, Aihong Li, Chuandao Shi, Qiling Liu, Jing Zhao . Paeonol alleviates lipopolysaccharide-induced hepatocytes injury through alteration of mitochondrial function and NF- κ B translocation *Mol Med Rep.* 2021 Nov;24(5):779.
 81. Junhao Zhu, Chao Tang, Zixiang Cong, Feng Yuan, Xiangming Cai, Jin Yang, Chiyan Ma . ACT001 reverses resistance of prolactinomas via AMPK-mediated EGR1 and mTOR pathways *Endocr Relat Cancer.* 2021 Dec 13;29(2):33-46.
 82. Meijuan Meng, Lairong Wang, Yan Wang, Nana Ma, Wan Xie, Guangjun Chang, Xiangzhen Shen . A high-concentrate diet provokes inflammation, endoplasmic reticulum stress, and apoptosis in mammary tissue of dairy cows through the upregulation of STIM1/ORAI1 *J Dairy Sci.* 2022 Apr;105(4):3416-3429.
 83. Zhao Yan, Yaxin Hu, Yiwei Zhang, Qian Pu, Liangzhao Chu, Jian Liu . Effects of endoplasmic reticulum stress-mediated CREB3L1 on apoptosis of glioma cells *Mol Clin Oncol.* 2022 Apr;16(4):83.
 84. Qihang Li, Zhiyu Zhang, HongChao Jiang, Jun Hou, Yuhang Chai, Hongxing Nan, Feng Li, Lianghai Wang . DLEU1 promotes cell survival by preventing DYNLL1 degradation in esophageal squamous cell carcinoma *J Transl Med.* 2022 May 26;20(1):245.
 85. Yan Sun, Xiaobing Chen, Yongpeng Xie, Yanli Wang, Qian Zhang, Yu Lu, Xiaomin Li . TRPM7 promotes lipopolysaccharide-induced inflammatory dysfunction in renal tubular epithelial cells *Immun Inflamm Dis.* 2022 Jul;10(7):e641.
 86. Jing Ji, Zhen Zhang, Xingbei He, Gang Pan, Guanchu Li, Jinyu Lv, Yuxin Xu, Mengru Xie, Jing Feng, Weiling Wang, Bin Liu, Jinming Ma, Xiuju Wang . A novel ribociclib derivative WXJ-103 exerts anti-breast cancer effect through CDK4/6 Anticancer Drugs. 2023 Aug 1;34(7):803-815.

Version 2024.03.12