



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

MTT细胞增殖及细胞毒性检测试剂盒

| 产品编号 | 产品名称 | 包装 |
|--------|-------------------|-------|
| C0009S | MTT细胞增殖及细胞毒性检测试剂盒 | 500次 |
| C0009M | MTT细胞增殖及细胞毒性检测试剂盒 | 2500次 |

产品简介：

- MTT细胞增殖及细胞毒性检测试剂盒(MTT Cell Proliferation and Cytotoxicity Assay Kit)是一种非常经典的细胞增殖和细胞毒性检测试剂盒，被广泛应用于细胞增殖和细胞毒性的检测。
- MTT可以被线粒体内的一些脱氢酶还原生成结晶状的深紫色产物formazan (图1A)。在特定溶剂存在的情况下，可以被完全溶解(图1B)。然后通过酶标仪可以测定570nm波长附近的吸光度(图2)。细胞增殖越多越快，则吸光度越高；细胞毒性越大，则吸光度越低。

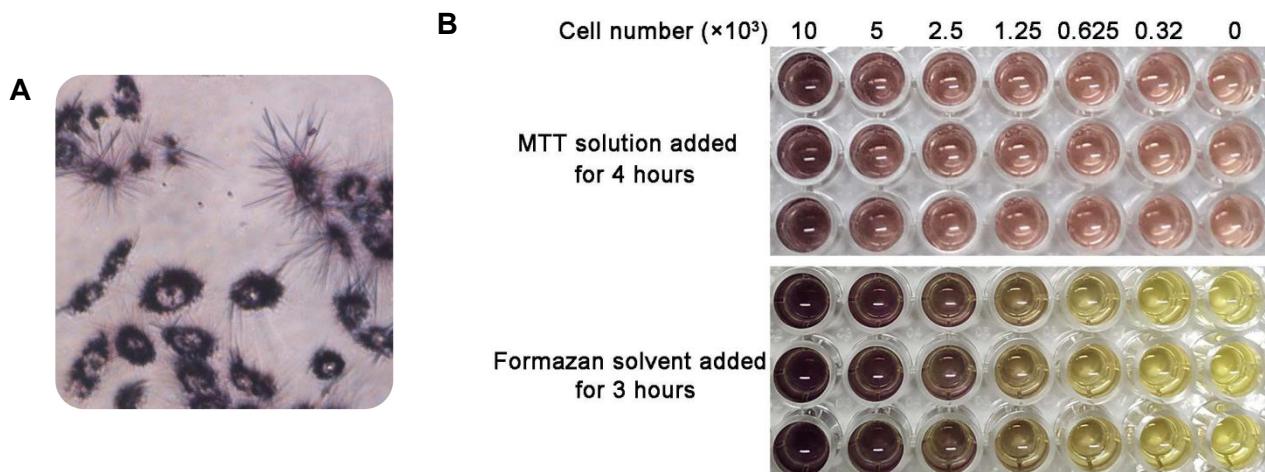


图1. MTT细胞增殖及细胞毒性检测试剂盒实测效果图。A. HeLa细胞加入使用本试剂盒配制的MTT溶液，在细胞培养箱内孵育4小时，显微镜下可见大量结晶状的深紫色产物formazan生成。B. 不同数量HeLa细胞在MTT溶液(MTT solution)加入后4小时的效果图(上图)及深紫色产物formazan生成后加入Formazan溶解液(Formazan solvent)，充分溶解后的效果图(下图)。

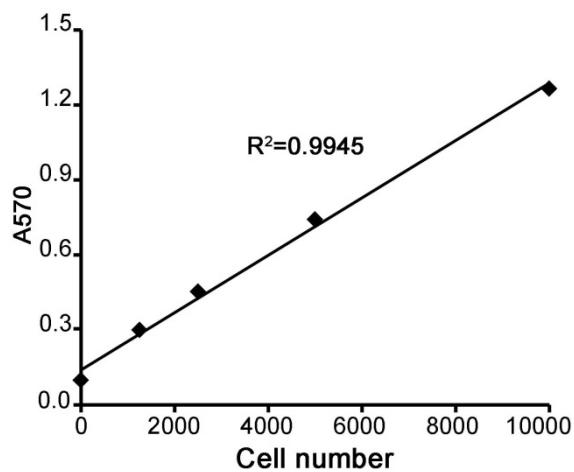


图2. 本试剂盒检测不同数量HeLa细胞的效果图。不同的检测条件下，实际读数会因标准品的配制、检测仪器等的不同而存在差异，图中数据仅供参考。

- 本试剂盒采用了独特的Formazan溶解液配方，无需去除原有的培养液，可以直接加入Formazan溶解液溶解formazan。从而避免了由于去除培养液时formazan被部分去除而引起的误差。
- 本试剂盒本底低，灵敏度高，线性范围宽，使用方便。
- 碧云天各种细胞增殖和细胞毒性检测试剂盒的比较和选择，请参考<http://www.beyotime.com/support/cell-proliferation.htm>。
- 本试剂盒C0009S包装可以测定500个样品，C0009M包装可以测定2500个样品。

包装清单：

| 产品编号 | 产品名称 | 包装 |
|----------|-------------|------|
| C0009S-1 | MTT | 25mg |
| C0009S-2 | MTT溶剂 | 5ml |
| C0009S-3 | Formazan溶解液 | 55ml |
| — | 说明书 | 1份 |

| 产品编号 | 产品名称 | 包装 |
|----------|-------------|-------|
| C0009M-1 | MTT | 125mg |
| C0009M-2 | MTT溶剂 | 25ml |
| C0009M-3 | Formazan溶解液 | 250ml |
| — | 说明书 | 1份 |

保存条件：

4°C或-20°C保存，MTT需避光保存，一年有效；MTT配制成溶液后需-20°C避光保存；Formazan溶解液也可以室温保存。

注意事项：

- 由于使用96孔板进行检测，如果细胞培养时间较长，一定要注意蒸发的问题。一方面，由于96孔板周围一圈最容易蒸发，可以采取弃用周围一圈的办法，改加PBS，水或培养液；另一方面，可以把96孔板置于靠近培养箱内水源的地方，以缓解蒸发。
- MTT溶剂在低温情况下会凝固，使用前请室温放置或20-25°C水浴温育片刻至全部融解后使用。
- MTT配制成溶液后为黄色，需避光保存，长时间光照会导致失效。当颜色变为灰绿色时，请勿使用。MTT溶液在4°C、冰浴等较低温度情况下会凝固，可以20-25°C水浴温育片刻至全部融解后使用。
- Formazan溶解液结冻或产生沉淀时可以室温或37°C水浴孵育以促进溶解，并且必须在全部溶解并混匀后使用。
- 加入Formazan溶解液后请适当轻轻混匀，但须注意避免产生泡沫。
- 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. MTT溶液的配制：用5ml MTT溶剂溶解25mg MTT，配制成5mg/ml的MTT溶液。配制后即可使用，或直接-20°C避光保存，也可以根据需要适当分装后-20°C避光保存。
2. 通常细胞增殖实验每孔加入100微升2000个细胞，细胞毒性实验每孔加入100微升5000个细胞(具体每孔所用的细胞的数目，需根据细胞的大小，细胞增殖速度的快慢等决定)。按照实验需要，进行培养并给予0-10微升特定的药物刺激。
3. 每孔加入10微升MTT溶液，在细胞培养箱内继续孵育4小时。
4. 每孔加入100微升Formazan溶解液，适当混匀，在细胞培养箱内再继续孵育。直至在普通光学显微镜下观察发现formazan全部溶解。通常37°C孵育3-4小时左右，紫色结晶会全部溶解。如果紫色结晶较小较少，溶解的时间会短一些。如果紫色结晶较大较多，溶解的时间会长一些，此时为加速溶解可以适当振摇数次。
5. 在570nm测定吸光度(可参考图2)。如无570nm滤光片，可以使用560-600nm的滤光片。

使用本产品的文献：

1. Zhong Y, Zhang XH, Chen J, Chi Z, Sun B, Li Y, Austin B. Overexpression, purification, characterization, and pathogenicity of *Vibrio harveyi* hemolysin VHH. *Infect Immun.* 2006 Oct;74(10):6001-5.
2. Li QT, Zhu YZ, Chu JY, Dong K, He P, Feng CY, Hu BY, Zhang SM, Guo XK. Granulocyte-macrophage colony-stimulating factor DNA prime-protein boost strategy to enhance efficacy of a recombinant pertussis DNA vaccine. *Acta Pharmacol Sin.* 2006 Nov;27(11):1487-94.
3. Fan QY, Liu QH, Li CP, Wang J. Experimental study on the effect of protoporphyrin disodium in vitro on anti-hbv. 《现代预防医学》. 2007;34(19):3614-8.
4. Yang H, Chen J, Yang G, Zhang XH, Li Y, Wang M. Characterization and pathogenicity of the zinc metalloprotease empA of *Vibrio anguillarum* expressed in *Escherichia coli*. *Curr Microbiol.* 2007 Mar;54(3):244-8.
5. Yang H, Chen J, Yang G, Zhang XH, Li Y, Wang M. Characterization and pathogenicity of the zinc metalloprotease empA of *Vibrio*. *Curr Microbiol.* 2007 Mar;54(3):244-8.
6. Li ZJ, Zhang K, Lou SQ, Zheng YF. A Cellular Study on Cytotoxicity of Magnesium-calcium Alloy. 《中国骨与关节损伤杂志》. 2007 Sep;22(9):740-742.
7. Xu J, Sun Y, Huang J, Chen C, Liu G, Jiang Y, Zhao Y, Jiang Z. Photokilling cancer cells using highly cell-specific antibody-TiO(2) bioconjugates and electroporation. *Bioelectrochemistry*. 2007 Nov;71(2):217-22.
8. Bai L, Pang WJ, Yang YJ, Yang GS. Modulation of Sirt1 by resveratrol and nicotinamide alters proliferation and differentiation of pig preadipocytes. *Mol Cell Biochem.* 2008 Jan;307(1-2):129-40.
9. Zhou XM, Xu GX, Zhao DM. In vitro effect of prion peptide PrP 106-126 on mouse macrophages: Possible role of macrophages in transport and proliferation for prion protein. *Microb Pathog.* 2008 Feb;44(2):129-34.
10. Zhan XD, Wang KX, Li CP. Studies on Anti2HBV Effect in vitro of Snail Polysaccharide. *Chinese Journal of Experimental Traditional Medical Formulae.* 2008 Mar;Vol.14(3):66-72.
11. LI Y, GUAN L, YANG J, ZHOU X, YIN X, ZHAO D. Influence of PrP 106—126 on expression of laminin and fibronectin in astrocyte. *CHINESE SCI BULL.* 2008 Jul;53(14):2160-4.
12. Tian Y, Wang Q, Liu Q, Ma Y, Cao X, Zhang Y. Role of RpoS in stress survival, synthesis of extracellular autoinducer 2, and virulence in *Vibrio alginolyticus*. *Arch Microbiol.* 2008 Nov;190(5):585-94.
13. Zhang Y, Jiang W, Fan Y, Wen J, Hao W, Qian M. Engineering enhancement of the immune response to HBV DNA vaccine in mice by the use of LIGHT gene adjuvant. *J Virol Methods.* 2008 Nov;153(2):142-8.
14. Fan Y, Jiang WZ, Wen JJ, Hao WL, Du JN, Liu X, Qian M. B7-DC-silenced dendritic cells induce stronger anti-HBV immunity in transgenic mice. *Arch Virol.* 2009;154(11):1813-21.
15. Zhang WW, Hu YH, Wang HL, Sun L. Identification and characterization of a virulence-associated protease from a pathogenic *Pseudomonas fluorescens* strain. *Vet*

- Microbiol. 2009 Oct 20;139(1-2):183-8.
16. Wang YN, Wu W, Chen HC, Fang H. Genistein protects against UVB-induced senescence-like characteristics in human dermal fibroblast by p66Shc downregulation. *J Dermatol Sci.* 2010;58(1):19-27
 17. Xu CQ, Liu BJ, Wu JF, Xu YC, Duan XH, Cao YX, Dong JC. Icarin attenuates LPS-induced acute inflammatory responses: involvement of PI3K/Akt and NF-κB signaling pathway. *Eur J Pharmacol.* 2010;642(1-3):146-53.
 18. Chen R, Huang C, Ke Q, He C, Wang H, Mo X. Preparation and characterization of coaxial electrospun thermoplastic polyurethane/collagen compound nanofibers for tissue engineering applications. *COLLOID SURFACE B.* 2010;79(2):315-25.
 19. Hu YH, Zheng WJ, Sun L. Identification and molecular analysis of a ferritin subunit from red drum (*Sciaenops ocellatus*). *FISH SHELLFISH IMMUN.* 2010;28(4):678-86.
 20. Cheng S, Zhang WW, Zhang M, Sun L. Evaluation of the vaccine potential of a cytotoxic protease and a protective immunogen from a pathogenic *Vibrio harveyi* strain. *Vaccine.* 2010;28(4):1041-7.
 21. Sun K, Jiao XD, Zhang M, Sun L. DNA adenine methylase is involved in the pathogenesis of *Edwardsiella tarda*. *Vet Microbiol.* 2010 Feb 24;141(1-2):149-54.
 22. Zheng WJ, Hua YH, Zhang M, Sun L. Analysis of the expression and antioxidative property of a peroxiredoxin 6 from *Scophthalmus maximus*. *FISH SHELLFISH IMMUN.* 2010 Aug;29(2):305-11.
 23. Su Y, Li X, Liu Y, Su Q, Qiang ML, Mo X. Encapsulation and Controlled Release of Heparin from Electrospun Poly(L-Lactide-co-epsilon-Caprolactone) Nanofibers. *J BIOMAT SCI-POLYM E.* 2011;22(1-3):165-77.
 24. Qian YF, Zhang KH, Chen F, Ke QF, Mo XM. Cross-linking of gelatin and chitosan complex nanofibers for tissue-engineering scaffolds. *J BIOMAT SCI-POLYM E.* 2011;22(8):1099-113.
 25. Zha YY, Yang B, Tang ML, Guo QC, Chen JT, Wen LP, Wang M. Concentration-dependent effects of fullerol on cultured hippocampal neuron viability. *INT J NANOMED.* 2012;7:3099-109.
 26. Li X, Lin L, Kanjwal MA, Chronakis IS, Liu S, Chen Y. Preparing photochromic nanofibers and animal cells using a photochromic compound of 1'3',3'-trimethyl-6-nitrospiro (2H-1-benzopyran-2,2'-indoline). *COLLOID SURFACE B.* 2012 Jan 1;89:67-72.
 27. Wei D, Sun N, Nan G, Wang Y, Liu HQ, Peeters B, Chen ZN, Bian H. Construction of recombinant Newcastle disease virus Italian strain for oncolytic virotherapy of tumors. *Hum Gene Ther.* 2012 Jul;23(7):700-10
 28. Ma X, Zhang S, Zhou J, Chen B, Shang Y, Gao T, Wang X, Xie H, Chen F. Clone-derived human AF-amniotic fluid stem cells are capable of skeletal myogenic differentiation in vitro and in vivo. *J TISSUE ENG REGEN M.* 2012 Aug;6(8):598-613
 29. Wang K, Ping S, Huang S, Hu L, Xuan H, Zhang C, Hu F. Molecular mechanisms underlying the in vitro anti-inflammatory effects of a flavonoid-rich ethanol extract from Chinese propolis (poplar type). *EVID-BASED COMPL ALT.* 2013;2013:127672
 30. Li Z, Gao Q. Induction of apoptosis in HT-29 cells by quercetin through mitochondria-mediated apoptotic pathway. *Animal Cells and Systems.* 2013;17(3):147-153
 31. Hu Z, Xing Y, Qian Y, Chen X, Tu J, Ren L, Wang K, Chen Z. Anti-radiation damage effect of polyethylenimine as a toll-like receptor 5 targeted agonist. *J Radiat Res.* 2013 Mar 1;54(2):243-50
 32. Du Q, Hu B, An HM, Shen KP, Xu L, Deng S, Wei MM. Synergistic anticancer effects of curcumin and resveratrol in HepG2 hepatocellular carcinoma cells. *Oncol Rep.* 2013 May;29(5):1851-8
 33. Mu JF, Von Kalle M, Plautz Q, -M Xu F, Singh L, Wang L. Relaxin promotes in vitro tumour growth, invasion and angiogenesis of human Saos-2 osteosarcoma cells by AKT/VEGF pathway. *EUR REV MED PHARMACO.* 2013 May;17(10):1345-50
 34. Hao Y, Ren J, Liu J, Yang Z, Liu C, Li R, Su Y. Immunological changes of chronic oral exposure to depleted uranium in mice. *Toxicology.* 2013 Jul 5;309:81-90.
 35. Shi F, Yang Y, Kouadri M, Fu Y, Yang L, Zhou X, Yin X, Zhao D. Inhibition of phagocytosis and lysosomal acidification suppresses neurotoxic prion peptide-induced NALP3 inflammasome activation in BV2 microglia. *J Neuroimmunol.* 2013 Jul 15;260(1-2):121-5
 36. Wang YT, Lu XM, Zhu F, Zhao M. The preparation of gold nanoparticles and evaluation of their immunological function effects on rats. *BIO-MED MATER ENG.* 2014;24(1):885-92
 37. Yang C, Fan J, Zhuang Z, Fang Y, Zhang Y, Wang S. The role of NAD(+) -dependent isocitrate dehydrogenase 3 subunit α in AFB1 induced liver lesion. *Toxicol Lett.* 2014 Jan 30;224(3):371-9
 38. Liu Y, Liu H, Zou J, Zhang B, Yuan Z. Dengue virus subgenomic RNA induces apoptosis through the Bcl-2-mediated PI3k/Akt signaling pathway. *Virology.* 2014 Jan 5;448:15-25
 39. Hao Y, Ren J, Liu C, Li H, Liu J, Yang Z, Li R, Su Y. Zinc Protects Human Kidney Cells from Depleted Uranium-induced Apoptosis. *BASIC CLIN PHARMACOL.* 2014 Mar;114(3):271-80
 40. Ma X, Zhao T, Ouyang T, Xin S, Ma Y, Chang M. Propranolol enhanced adipogenesis instead of induction of apoptosis of hemangiomas stem cells. *INT J CLIN EXP PATHO.* 2014 Jun 15;7(7):3809-17
 41. Chen Z, Ye X, Tang N, Shen S, Li Z, Niu X, Lu S, Xu L. The histone acetyltransferase hMOF acetylates Nrf2 and regulates anti-drug responses in human non-small cell lung cancer. *BRIT J PHARMACOL.* 2014 Jul;171(13):3196-211
 42. Chen Z, Zhu M, Pan X, Zhu Y, Yan H, Jiang T, Shen Y, Dong X, Zheng N, Lu J, Ying S, Shen Y. Inhibition of Hepatitis B virus replication by SAMHD1. *BIOCHEM BIOPH RES CO.* 2014 Aug 8;450(4):1462-8
 43. Shi JX, Li JS, Hu R, Shi Y, Su X, Guo XJ, Li XM. Tristetraprolin is involved in the glucocorticoid-mediated interleukin 8 repression. *Int Immunopharmacol.* 2014 Oct;22(2):480-5.
 44. Jiang LM, Nie SP, Zhou HL, Huang DF, Xie MY. Carboxymethylation enhances the maturation-inducing activity in dendritic cells of polysaccharide from the seeds of *Plantago asiatica* L. *Int Immunopharmacol.* 2014 Oct;22(2):324-31
 45. Lu W, Zuo Y, Feng Y, Zhang M. SIRT5 facilitates cancer cell growth and drug resistance in non-small cell lung cancer. *TUMOR BIOL.* 2014 Nov;35(11):10699-705
 46. Yang S, Hao J, Guo X, Huang H, Cui R, Lin G, Li C, Dong J, Sun B. Eu 3+@CNTS—a rare earth filled carbon nanotube nanomaterial with low toxicity and good photoluminescence properties. *RSC Advances.* 2015;5(28):21634-9
 47. Peng Y, Fu ZZ, Guo CS, Zhang YX, Di Y, Jiang B, Li QW. Effects and Mechanism of Baicalin on Apoptosis of Cervical Cancer HeLa Cells In-vitro. *Iran J Pharm Res.* 2015 Winter;14(1):251-61.
 48. Jin H F, Liu X W, Tang Y M, Tang L J, Wang Y L, Du C Q. Effects of total flavones from *Dendranthema morifolium* on vasoconstriction and proliferation of vascular smooth muscle cells. *Molecular Medicine Reports.* 2015 Thu;13(1):989-93
 49. Liu XD, Zhang FB, Zhou B, Shan H, Chen PY. Effect of sonication on different quality parameters of *Pinus massoniana* pollen. *Ultrasound Sonochem.* 2015 Jan;22:174-81
 50. Zhang B, Peng X, Li G, Xu Y, Xia X, Wang Q. Oxidative stress is involved in Patulin induced apoptosis in HEK293 cells. *Toxicon.* 2015 Feb;94:1-7
 51. Liu L, Lear Z, Hughes DJ, Wu W, Zhou EM, Whitehouse A, Chen H, Hiscox JA. Resolution of the cellular proteome of the nucleocapsid protein from a highly pathogenic isolate of porcine reproductive and respiratory syndrome virus identifies PARP-1 as a cellular target whose interaction is critical for virus biology. *Vet Microbiol.* 2015 Mar 23;176(1-2):109-19
 52. Peng X, Zhuang DD, Guo QS. Induction of S phase arrest and apoptosis by ethyl acetate extract from *Tetrastigma hemsleyanum* in human hepatoma HepG2 cells. *TUMOR BIOL.* 2015 Apr;36(4):2541-50
 53. Chen X, Bo L, Zhao X, Chen Q. MicroRNA-133a inhibits cellproliferation, colony formation ability, migration and invasion by targeting matrixmetallopeptidase 9 in hepatocellular carcinoma. *Mol Med Rep.* 2015 May;11(5):3900-7.
 54. Liu S, Huang H. Effects of epicatechin gallate (ECG) on fetal bovine serum (FBS)-induced steatosis in human liver cell line L02 and 2, 2'-azobis (2-amidinopropane)(AAPH)-induced oxidative stress in human erythrocytes. *European Food Research and Technology.* 2015 Jun 26;16(7):14511-25
 55. Tong Z, Jiang B, Wu Y, Liu Y, Li Y, Gao M, Jiang Y, Lv Q, Xiao X. MiR-21 Protected Cardiomyocytes against Doxorubicin-Induced Apoptosis by Targeting BTG2. *Int J Mol Sci.* 2015 Jun 26;16(7):14511-25
 56. Peng X, Zhang T, Zhang J. Effect of subculture times on genetic fidelity, endogenous hormone level and pharmaceutical potential of *Tetrastigma hemsleyanum* callus. *PLANT CELL TISS ORG.* 2015 Jul;122(1):67-77.
 57. Ma Q, Chen Z, Jia G, Lu X, Xie X, Jin W. The histone demethylase PHF8 promotes prostate cancer cell growth by activating the oncomiR miR-125b. *ONCOTARGETS THER.* 2015 Aug 10;8:1979-88.
 58. Wu F, Song H, Zhang Y, Zhang Y, Mu Q, Jiang M, Wang F, Zhang W, Li L, Li H, Wang Y, Zhang M, Li S, Yang L, Meng Y, Tang D. Irisin Induces Angiogenesis in Human Umbilical Vein Endothelial Cells In Vitro and Zebrafish Embryos In Viviovia Activation of the ERK Signaling Pathway. *PLoS One.* 2015 Aug 4;10(8):e0134662
 59. Wang JJ, Sun L. Ferritin M of *Paralichthys olivaceus* possesses antimicrobial and antioxidative properties. *Fish Physiol Biochem.* 2015 Aug;41(4):951-9
 60. Jin Y, Liu L, Zhang S, He R, Wu Y, Chen G, Fu Z. Cadmium exposure to murine macrophages decreases their inflammatory responses and increases their oxidative stress. *Chemosphere.* 2015 Sep 9;144:168-75.
 61. Zhu G, Chen X, Mao Y, Kang L, Ma X, Jiang Y. Characterization of annexin A2 in chicken follicle development: Evidence for its involvement in angiogenesis. *Anim Reprod Sci.* 2015 Oct;161:104-11
 62. Chen J J, Gao L J, Liu T J. Photodynamic therapy with a novel porphyrin-based photosensitizer against human gastric cancer. *ONCOL LETT.* 2015 Nov;23:775-81
 63. Yin C, Liang Y, Zhang J, Ruan G, Li Z, Pang R, Pan X. Umbilical Cord-Derived Mesenchymal Stem Cells Relieve Hindlimb Ischemia through Enhancing Angiogenesis in Tree Shrews. *Stem Cells Int.* 2016;2016:9742034
 64. Chen H, Li Y, Shi J, Song W. Role and mechanism of insulin-like growth factor 2 on the proliferation of human trophoblasts in vitro. *J OBSTET GYNAECOL RE.* 2016 Jan;42(1):44-51
 65. Wang S, Zhou J, Kang W, Dong Z, Wang H. Tocilizumab inhibits neuronal cell apoptosis and activates STAT3 in cerebral infarction rat model. *BOSNIAN J BASIC MED.* 2016 Jan 15;16(2):145-50
 66. Yan Y, Jiang Y. RACK1 affects glioma cell growth and differentiation through the CNTN2-mediated RTK/Ras/MAPK pathway. *Int J Mol Med.* 2016 Jan;37(1):251-7
 67. Zhou H, Li J, Yuan J, Chen T, Deng H, Zhang J, Zeng H, Shan Z, Chen W. Effects and mechanism of arsenic trioxide in combination with rmhTRAIL in multiple myeloma. *Exp Hematol.* 2016 Feb;44(2):125-31
 68. Qin W, Xie W, Yang X, Xia N, Yang K. Inhibiting microRNA-449 Attenuates

- Cisplatin-Induced Injury in NRK-52E Cells Possibly via Regulatingthe SIRT1/P53/BAX Pathway.MED SCI MONITOR . 2016 Mar 12;22:818-23
69. Li JP, Ma Q, Chen CM.Mitochondrial dysfunction in resveratrol-induced apoptosis in QGY-7701 cells.GENET MOL RES . 2016 Mar 24;15(1). doi: 10.4238/gmr.15017490
 70. Hu W, Zhang W, Li F, Guo F, Chen A .miR-139 is up-regulated in osteoarthritis and inhibits chondrocyte proliferation and migration possiblyvia suppressing EIF4G2 and IGF1R.BIOCHEM BIOPH RES CO . 2016 May 27;474(2):296-302
 71. Xu H, Jin L, Chen Y, Li J.Downregulation of microRNA-429 protects cardiomyocytes against hypoxia-induced apoptosis byincreasing Notch1 expression.Int J Mol Med . 2016 Jun;37(6):1677-85
 72. Luo SW, Wang WN, Sun ZM, Xie FX, Kong JR, Liu Y, Cheng CH.Molecular cloning, characterization and expression analysis of (B-cell lymphoma-2 associated X protein)Ba in the orange-spotted grouper (Epinephelus coioides) after the Vibrio alginolyticus challenge.Dev Comp Immunol . 2016 Jul;60:66-79
 73. Du X, Li Q, Pan Z, Li Q.Androgen receptor and miRNA-126* axis controls follicle-stimulating hormone receptor expression inporcine ovarian granulosa cells.Reproduction . 2016 Aug;152(2):161-9
 74. Du Y, Zhang S, Yu T, Du G, Zhang H, Yin Z .Wnt3a is critical for endothelial progenitor cell-mediated neural stem cell proliferation and differentiation.Mol Med Rep . 2016 Sep;14(3):2473-82
 75. Gong K, Qu B, Liao D, Liu D, Wang C, Zhou J, Pan X.MiR-132 regulates osteogenic differentiation via downregulating Sirtuin1 in a peroxisome proliferator-activated receptor β/δ -dependent manner.BIOCHEM BIOPH RES CO . 2016 Sep 9;478(1):260-7
 76. Wang X, Cao H, Guan XL, Long LH, Hu ZL, Ni L, Wang F, Chen JG, Wu PF.Sulfite triggers sustained calcium overload in cultured cortical neurons via a redox-dependentmechanism.Toxicol Lett . 2016 Sep 6;258:237-48.
 77. Cui H, Ma C, Lin L.Co-loaded proteinase K/thyme oil liposomes for inactivation of Escherichia coli O157:H7 biofilms oncucumber.Food Funct . 2016 Sep 14;7(9):4030-4040
 78. Jin Y, Chen G, Fu Z.Effects of TBEP onthe induction of oxidative stress and endocrine disruption in Tm3 Leydig cells.Environ Toxicol . 2016 Oct;31(10):1276-86
 79. Yu P, Guo Y, Yusufi M, Liu Z, Wang S, Yin X, Peng G, Wang L, Zhao X, Guo H, Huang T, Liu C.Decreased expression of EZH2 reactivates RASSF2A by reversal of promoter methylation in breastcancer cells.Cell Biol Int . 2016 Oct;40(10):1062-70
 80. Zhang C, Liang W, Zhang W, Li C.Characterization of a metalloprotease involved in Vibrio splendidus infection in the sea cucumber,Apostichopus japonicus.MICROB PATHOGENESIS . 2016 Dec;101:96-103
 81. Wang Y, Wang X, Shang J, Liu H, Yuan Y, Guo Y, Huang B, Zhou Y.Repairing the ruptured annular fibrosus by using type I collagen combined with citric acid, EDC andNHS: an in vivo study.Eur Spine J . 2016 Dec 21. doi: 10.1007/s00586-016-4898-1. [Epub ahead of print]
 82. Wang X, Mu G, Dang R, Yang Z.Up-regulation of IL-10 upon PRRSV vaccination impacts on the immune response against CSFV.Vet Microbiol . 2016 Dec 25;197:68-71
 83. Li S, Liu X, Lei J, Yang J, Tian P, Gao Y.Crocin Protects Podocytes Against Oxidative Stress and Inflammation Induced by High Glucose Through Inhibition of NF- κ B.CELL PHYSIOL BIOCHEM . 2017;42(4):1481-1492.
 84. Zhang X, Wu D, Aldaroush M, Yin X, Li C, Wang C.ETS-1: A potential target of glycolysis for metabolic therapy by regulating glucose metabolism inpancreatic cancer.Int J Oncol . 2017 Jan;50(1):232-240
 85. Wu J, Liu Z, Su J, Pan N, Song Q.Anti-inflammatory activity of3 β -hydroxycholest-5-en-7-one isolated from Hippocampustramaculatus leach via inhibiting iNOS,TNF- α ,andIL-1 β of LPS induced RAW 264.7 macrophage cells.Food Funct . 2017 Feb 22;8(2):788-795
 86. Liu J, Li Y, Luo M, Yuan Z, Liu J.MicroRNA-214 inhibits the osteogenic differentiation of human osteoblasts throughthe directregulation of baculoviral IAP repeat-containing 7.Exp Cell Res . 2017 Feb 15;351(2):157-162
 87. Fang F, Song T, Zhang T, Cui Y, Zhang G, Xiong Q.MiR-425-5p promotes invasion and metastasis of hepatocellular carcinoma cells through SCAI-mediated dysregulation of multiple signaling pathways.ONCOTARGET . 2017 May 9;8(19):31745-31757
 88. Huang R, Hu Z, Feng Y, Yu L, Li X.The Transcription Factor IRF6 Co-Represses PPAR γ -Mediated Cytoprotection in IschemicCerebrovascular Endothelial Cells.SCI REP-UK . 2017 May 19;7(1):2150
 89. Liu X, Liu H, Zhai Y, Li Y, Zhu X, Zhang W.Laminarin protects against hydrogen peroxide-induced oxidative damage in MRC-5 cellpossibly via regulating NRF2.PeerJ . 2017 Jul 31;5:e3642
 90. Zou Z, Meng Z, Ma C, Liang D, Sun R, Lan K.Guanylate-Binding Protein 1 Inhibits Nuclear Delivery of Kaposi's Sarcoma-AssociatedHerpesvirus Virions by Disrupting Formation of Actin Filament.J Virol . 2017 Jul 27;91(16). pii: e00632-17
 91. Liu Y, Feng J, Zhao M, Wu J, Fan J, Wen Q, Xu J, Zhang J, Fu S, Wang B, Lu Y, Xiong K, Xiang L, Zhang Y, Yang L.JNK pathway inhibition enhances chemotherapeutic sensitivity to Adriamycin in nasopharyngealcarcinoma cells.Oncol Lett . 2017 Aug;14(2):1790-1794
 92. Liu Y, Tang J, Gao X, Wang M, Shen J, You X.Effect of retinoid X receptor- α nuclear export inhibition on apoptosis of neurons in vivo and in vitro.Mol Med Rep . 2017 Aug;16(2):2037-2044
 93. Zhang K,Sun W,Zhang L,Xu X,Wang J,Hong YmiR-499 Ameliorates Podocyte Injury by Targeting Calcineurin in Minimal Change Disease.Am J Nephrol . 2018;47(2):94-102
 94. Lin J,Wang C,Liang W,Zhang J,Zhang L,Lv H,Dong W,Zhang YRab1A is required for assembly of classical swine fever virus particle.Virology . 2018 Jan 15;514:18-29
 95. Yu P,Shei X,Yang W,Zhang Y,Liu C,Huang TZEB1 stimulates breast cancer growth by up-regulating hTERT expression.BIOCHEM BIOPH RES CO . 2018 Jan 22;495(4):2505-2511
 96. Hu P,Cheng B,He Y,Wei Z,Wu D,Meng ZAutophagy suppresses proliferation of HepG2 cells via inhibiting glycan-3/wnt/ β -catenin signaling.ONCOTARGETS THER . 2018 Jan 4;11:193-200
 97. Cui H,Bai M,Yuan L,Surendhiran D,Lin LSequential effect of phages and cold nitrogen plasma against Escherichia coli O157:H7 biofilms on different vegetables.Int J Food Microbiol . 2018 Mar 2;268:1-9.
 98. Zhao R,Guo Z,Zhang R,Deng C,Xu J,Dong W,Hong Z,Yu H,Situ H,Liu C,Zhuang G.Nasal epithelial barrier disruption by particulate matter $\leq 2.5 \mu\text{m}$ via tight junction protein degradation.J Appl Toxicol . 2018 May;38(5):678-687
 99. Lin W,Xu G.Over-expression of CNTF in bone marrow mesenchymal stem cells protects RPE cells from short-wavelength, blue-light injury.IN VITRO CELL DEV AN . 2018 May;54(5):355-365
 100. Xue YZB,Niu YM,Tang B,Wang CM.PCL/EUG scaffolds with tunable stiffness can regulate macrophage secretion behavior.PROG BIOPHYS MOL BIO . 2018 May 21. pii: S0079-6107(17)30320-6
 101. Zou C,Liu G,Liu S,Liu S,Song Q,Wang J,Feng Q,Su Y,Li SCucurbitacin B acts a potential insect growth regulator by antagonizing 20-hydroxyecdysone activity.Pest Manag Sci . 2018 Jun;74(6):1394-1403
 102. Ding H,Liu J,Liu B,Zeng Y,Chen P,Su YLong noncoding RNA PVT1 inhibits interferon- α mediated therapy for hepatocellular carcinoma cells by interacting with signal transducer and activator of transcription 1.BIOCHEM BIOPH RES CO . 2018 Jun 12;500(4):973-980
 103. Tang Y,Jin S,Li X,Li X,Hu X,Chen Y,Huang F,Yang Z,Yu F,Ding GPhysicochemical Properties and Biocompatibility Evaluation of Collagen from the Skin of Giant Croaker (Nibea japonica).Mar Drugs . 2018 Jun 29;16(7). pii: E222
 104. Zhu X,Wu T,Chi Y,Ge Y,Wu B,Zhou M,Zhu F,Ji M,Cui LPyroptosis induced by enterovirus A71 infection in cultured human neuroblastoma cells.Virology . 2018 Jun 7;521:69-76
 105. Weikang Liang,Weiwei Zhang,Yina Shao,Xuelin Zhao,Chenghua LiDual Functions of a 4-hydroxyphenylpyruvate Dioxygenase for Vibrio Splendidus Survival and InfectionMICROB PATHOGENESIS . 2018 Jul;120:47-54.;doi: 10.1016/j.micpath.2018.04.055
 106. Yi Gu,Nan Yang,Leping Yin,Chao Feng,Tong LiuInhibitory Roles of miR-9 on Papillary Thyroid Cancer Through Targeting BRAFMol Med Rep . 2018 Jul;18(1):965-972.;doi: 10.3892/mmr.2018.9010
 107. Chen TT,Tan LR,Hu N,Dong ZQ,Hu ZG,Jiang YM,Chen P,Pan MH,Lu CC-lysozyme contributes to antiviral immunity in Bombyx mori against nucleopolyhedrovirus infection.J Insect Physiol . 2018 Jul;108:54-60
 108. Chen Z,Ding Z,Zhang G,Tian L,Zhang X.Construction of Thermo-Responsive Elastin-Like Peptides (ELPs)-Aggregation-Induced-Emission (AIE) Conjugates for Temperature Sensing.Molecules . 2018 Jul 14;23(7). pii: E1725
 109. Cheng W,Jia H,Wang X,He X,Jin Q,Cao J,Jing Z . Ectromelia virus upregulates the expression of heat shock protein 70 to promote viral replication.Int J Mol Med . 2018 Aug;42(2):1044-1053
 110. Zhang L,Feng M,Li Z,Zhu M,Fan Y,Chu B,Yuan C,Chen L,Lv H,Hong Z,Hong D,Bulleyaconitine A prevents Ti particle-induced osteolysis via suppressing NF- κ B signal pathway during osteoclastogenesis and osteoblastogenesis.J Cell Physiol . 2018 Sep;233(9):7067-7079
 111. Wang DG,Li TM,Liu XRHCG suppresses cervical cancer progression through inhibiting migration and inducing apoptosis regulated by TGF- β 1.BIOCHEM BIOPH RES CO . 2018 Sep 3;503(1):86-93
 112. Lin P,Ding B,Wu Y,Dong K,Li QMitogen-stimulated cell proliferation and cytokine production in major depressive disorder patients.BMC Psychiatry . 2018 Oct 12;18(1):330.
 113. Zhu X,Gao L,Yan C,He YA novel role and mechanism of cystic fibrosis transmembrane conductance regulator in bisphenol A-induced prostate cancer.J Cell Biochem . 2018 Nov 28
 114. Wu H,Liu HY,Liu WJ,Shi YL,Bao DmiR-377-5p inhibits lung cancer cell proliferation, invasion, and cell cycle progression by targeting AKT1 signaling.J Cell Biochem . 2018 Nov 28
 115. Luo J,Gu Y,Liu P,Jiang X,Yu W,Ye P,Chao Y,Yang H,Zhu L,Zhou L,Chen S,Berberine attenuates pulmonary arterial hypertension via protein phosphatase 2A signaling pathway both in vivo and in vitro.J Cell Physiol . 2018 Dec;233(12):9750-9762
 116. Li L,Zhang L,Zhang YRoles of miR-494 in Intervertebral Disk Degeneration and the Related Mechanism.World Neurosurg . 2018 Dec 30;pii: S1878-8750(18)32921-8
 117. Yuan L,Liao PP,Song HC,Zhou JH,Chu HC,Lyu LHyperbilirubinemia Induces Pro-Apoptotic Effects and Aggravates Renal Ischemia Reperfusion Injury.Nephron . 2019;142(1):40-50
 118. Yang S,Bao H,Wang H,Li QAnti-tumour Effect and Pharmacokinetics of an Active Ingredient Isolated from Inonotus hispidus.Biol Pharm Bull . 2019;42(1):10-17
 119. Liang Gong,Hong Zhu,Taotao Li,Guangfeng Ming,Xuewu Duan,Jiasheng Wang,Yueming JiangMolecular Signatures of Cytotoxic Effects in Human Embryonic Kidney 293 Cells Treated With Single and Mixture of Ochratoxin A and

120. Yuehua Wang,Jie Lin,Jinlong Tian,Xu Si,Xinyao Jiao,Weijsia Zhang,Erscheng Gong,Bin LiBlueberry Malvidin-3-galactoside Suppresses Hepatocellular Carcinoma by Regulating Apoptosis, Proliferation, and Metastasis Pathways In Vivo and In Vitro.J AGR FOOD CHEM. 2019 Jan 16;67(2):625-636.;doi: 10.1021/acs.jafc.8b06209
121. Dai Y,Wang W,Sun Q,Tuohayi JGinsenoside Rg3 promotes the antitumor activity of gefitinib in lung cancer cell lines.Exp Ther Med. 2019 Jan;17(1):953-959
122. Shen L,Ma G,Shi Y,Ruan Y,Yang X,Wu X,Xiong Y,Wan C,Yang C,Cai L,Xiong L,Gong X,He L,Qin Sp.E95K mutation in Indian hedgehog causing brachydactyly type A1 impairs IHH/Gli1 downstream transcriptional regulation.BMC Genet. 2019 Jan;16(20):10
123. Zhang Z,Li H,Liu M,He J,Zhang X,Chen Y.Skullcapflavone I protects cardiomyocytes from hypoxia-caused injury through up-regulation of lincRNA-ROR.INT J IMMUNOPATH PH. 2019 Jan-Dec;33:2058738419857537
124. Zuo G,Ren X,Qian X,Ye P,Luo J,Gao X,Zhang J,Chen S.Inhibition of JNK and p38 MAPK-mediated inflammation and apoptosis by ivabradine improves cardiac function in streptozotocin-induced diabetic cardiomyopathy.J Cell Physiol. 2019 Feb;234(2):1925-1936
125. Liu XD,Zhang FX,Qin ZH,Shan H.Isolation and antiproliferation of tumor cells by a novel peptide (TC22) from the beetle Tribolium castaneum.Amino Acids. 2019 Feb;51(2):311-318.
126. Zhang X,Li P,Zheng Q,Hou J.Lactobacillus acidophilus S-layer protein-mediated inhibition of PEDV-induced apoptosis of Vero cells.Vet Microbiol. 2019 Feb;229:159-167
127. Li X,Wu M,An D,Yuan H,Li Z,Song Y,Liu Z.Suppression of Tafazzin promotes thyroid cancer apoptosis via activating the JNK signaling pathway and enhancing INF2-mediated mitochondrial fission.J Cell Physiol. 2019 Feb 11
128. Wang L,Xie Y,Yang W,Yang Z,Jiang S,Zhang C,Zhang G.Alfalfa polysaccharide prevents H2O2-induced oxidative damage in MEFs by activating MAPK/Nrf2 signaling pathways and suppressing NF- κ B signaling pathways.SCI REP-UK. 2019 Feb 11;9(1):1782
129. Xu Q,Liu Y,Pan H,Xu T,Li Y,Yuan J,Li P,Yao W,Yan W,Ni C.Aberrant expression of miR-125a-3p promotes fibroblast activation via Fyn/STAT3 pathway during silica-induced pulmonary fibrosis.Toxicology. 2019 Feb 15;414:57-67
130. Cao L,Li WJ,Yang JH,Wang Y,Hua ZJ,Liu D,Chen YQ,Zhang HM,Zhang R,Zhao JS,Cheng SJ,Zhang Q.Inflammatory cytokine-induced expression of MASTL is involved in hepatocarcinogenesis by regulating cell cycle progression.Oncol Lett. 2019 Mar;17(3):3163-3172
131. Lv Z,Guo M,Li C,Shao Y,Zhao X,Zhang W.VEGF-like protein from Apostichopus japonicus promotes cell proliferation and migration.Dev Comp Immunol. 2019 Mar;92:230-237
132. Yang X,Wang W,Zhang X,Zou Q,Cai L,Yu B.Downregulation of miR-183 inhibits the growth of PANC-1 pancreatic cancer cells in vitro and in vivo, and increases chemosensitivity to 5-fluorouracil and gemcitabine.Exp Ther Med. 2019 Mar;17(3):1697-1705
133. Ren W,Yi H,Bao Y,Liu Y,Gao X.Oestrogen inhibits PTEN to prevent the apoptosis of renal podocytes.Exp Ther Med. 2019 Mar;17(3):2373-2380
134. Zha S,Shi W,Su W,Guan X,Liu G.Exposure to 2,3,7,8-tetrachlorodibenzo-paradioxin (TCDD) hampers the host defense capability of a bivalve species, Tegillarca granosa.FISH SHELLFISH IMMUN. 2019 Mar;86:368-373
135. Lu DL,Ma Q,Wang J,Li LY,Han SL,Limbu SM,Li DL,Chen LQ,Zhang ML,Du ZY.Fasting enhances cold resistance in fish through stimulating lipid catabolism and autophagy.J Physiol. 2019 Mar;597(6):1585-1603.
136. Zhang G,He J,Ye X,Zhu J,Hu X,Shen M,Ma Y,Mao Z,Song H,Chen F. β -Thujaplicin induces autophagic cell death, apoptosis, and cell cycle arrest through ROS-mediated Akt and p38/ERK MAPK signaling in human hepatocellular carcinoma.Cell Death Dis. 2019 Mar 15;10(4):255
137. Zhai N,Liu K,Li H,Liu Z,Wang H,Korolchuk VI,Carroll B,Pan C,Gan F,Huang K,Chen X.PCV2 replication promoted by oxidative stress is dependent on the regulation of autophagy on apoptosis.Vet Res. 2019 Mar 5;50(1):19
138. Batulu H,Du GJ,Li DZ,Sailike D,Fan YH,Geng D.Effect of poly-arginine R18 on neurocyte cell growth via autophagy in traumatic brain injury.Exp Ther Med. 2019 May;17(5):4109-4115
139. Yu Z,Li Y,Han T,Liu Z.Demethylation of the HACE1 gene promoter inhibits the proliferation of human liver cancer cells.Oncol Lett. 2019 May;17(5):4361-4368
140. Ren H,Yang H,Xie M,Wen Y,Liu Q,Li X,Liu J,Xu H,Tang W,Wang M.Chondrocyte apoptosis in rat mandibular condyles induced by dental occlusion due to mitochondrial damage caused by nitric oxide.Arch Oral Biol. 2019 May;101:108-121
141. Wang J,Hu H,Song J,Yan F,Qin J,Guo X,Cui C,He Q,Hou X,Liu F,Chen L.Aldosterone induced up-expression of ICAM-1 and ET-1 in pancreatic islet endothelium may associate with progression of T2D.BIOCHEM BIOPH RES CO. 2019 May 14;512(4):750-757
142. Guo X,Wang Y,Chen Q,Yuan Z,Chen Y,Guo M,Kang L,Sun Y,Jiang Y.The Role of PTHLH in Ovarian Follicle Selection, Its Transcriptional Regulation and Genetic Effects on Egg Laying Traits in Hens.Front Genet. 2019 May 14;10:430
143. Zan Y,Wang B,Liang L,Deng Y,Tian T,Dai Z,Dong L.MicroRNA-139 inhibits hepatocellular carcinoma cell growth through down-regulating karyopherin alpha 2.J EXP CLIN CANC RES. 2019 May 2;38(1):182
144. Qiu JF,Li X,Cui WZ,Liu XF,Tao H,Yang K,Dai TM,Sima YH,Xu SQ.Inhibition of
145. Zhang Z,Chen Y,Li B,Yao Y,Jiang A,Wei W,Liu H,Wu W.Identification of a novel miR-206-Notch3 pathway regulating mouse myoblasts proliferation.Gene. 2019 May 5;695:57-64
146. Zhang G,Ni Y,Zhang D,Li H,Wang N,Yu C,Li L,Huang W.Rational design of NIR fluorescence probes for sensitive detection of viscosity in living cells.SPECTROCHIM ACTA A. 2019 May 5;214:339-347
147. Sun X,Li X,Jia H,Loor JJ,Bucktrout R,Xu Q,Wang Y,Shu X,Dong J,Zuo R,Yang L,Liu G,Li X.Effect of heat-shock protein B7 on oxidative stress in adipocytes from prerumiant calves.J Dairy Sci. 2019 Jun;102(6):5673-5685
148. Li Y,Zhou H,Li Y,Han L,Song M,Chen F,Shang G,Wang D,Wang Z,Zhang W,Zhong M.PTPN2 improved renal injury and fibrosis by suppressing STAT-induced inflammation in early diabetic nephropathy.J Cell Mol Med. 2019 Jun;23(6):4179-4195
149. Xiong Q,Wang Z,Yu Y,Wen Y,Suguro R,Mao Y,Zhu YZ.Hydrogen sulfide stabilizes atherosclerotic plaques in apolipoprotein E knockout mice.Pharmacol Res. 2019 Jun;144:90-98
150. Wang X,Wang N,Yang Y,Wang X,Liang J,Tian X,Zhang H,Leng X.Polydopamine nanoparticles carrying tumor cell lysate as a potential vaccine for colorectal cancer immunotherapy.BIOMATER SCI-UK. 2019 Jun 25;7(7):3062-3075
151. Xu HX,Pan W,Qian JF,Liu F,Dong HQ,Liu QJ.MicroRNA-21 contributes to the puerarin-induced cardioprotection via suppression of apoptosis and oxidative stress in a cell model of ischemia/reperfusion injury.Mol Med Rep. 2019 Jul;20(1):719-727
152. Rao Z,Cao H,Shi B,Liu X,Luo J,Zeng N.Inhibitory Effect of Jing-Fang Powder n-Butanol Extract and Its Isolated Fraction D on Lipopolysaccharide-Induced Inflammation in RAW264.7 Cells.J Pharmacol Exp Ther. 2019 Jul;370(1):62-71
153. Huang C,Yang X,Huang J,Liu X,Yang X,Jin H,Huang Q,Li L,Zhou R.Porcine Beta-Defensin 2 Provides Protection Against Bacterial Infection by a Direct Bactericidal Activity and Alleviates Inflammation via Interference With the TLR4/NF- κ B Pathway.Front Immunol. 2019 Jul 18;10:1673
154. Lu L,Li J,Le Y,Jiang H.Inhibitor of growth 4 (ING4) inhibits hypoxia-induced EMT by decreasing HIF-1 α and snail in HK2 cells.Acta Histochem. 2019 Aug;121(6):695-703
155. Lu Z,Jiang X,Chen M,Feng L,Kang YJ.An oxygen-releasing device to improve the survival of mesenchymal stem cells in tissue engineering.Biofabrication. 2019 Aug 13;11(4):045012
156. Liu X,Zhuang J,Wang D,Lv L,Zhu F,Yao A,Xu T.Glycyrhizin suppresses inflammation and cell apoptosis by inhibition of HMGB1 via p38/p-JUK signaling pathway in attenuating intervertebral disc degeneration.Am J Transl Res. 2019 Aug 15;11(8):5105-5113. eCollection 2019
157. Zhang Y,Zhang W,Xu A,Tian Y,Liang C,Wang Z.MicroRNA-188 inhibits proliferation migration and invasion of prostate carcinoma by targeting at MARCKS.Am J Transl Res. 2019 Aug 15;11(8):5019-5028. eCollection 2019
158. Guan X,Tang Y,Zha S,Han Y,Shi W,Ren P,Yan M,Pan Q,Hu Y,Fang J,Zhang J,Liu G.Exogenous Ca $^{2+}$ mitigates the toxic effects of TiO 2 nanoparticles on phagocytosis, cell viability, and apoptosis in haemocytes of a marine bivalve mollusk, Tegillarca granosa.Environ Pollut. 2019 Sep;252(Pt B):1764-1771
159. Cai R,Meng G,Li Y,Wang W,Diao Y,Zhao S,Feng Q,Tang Y.The oncolytic efficacy and safety of avian reovirus and its dynamic distribution in infected mice.EXP BIOL MED. 2019 Sep;244(12):983-991
160. Lu DL,Ma Q,Sun SX,Zhang H,Chen LQ,Zhang ML,Du ZY.Reduced oxidative stress increases acute cold stress tolerance in zebrafish.Comp Biochem Physiol A Mol Integr Physiol. 2019 Sep;235:166-173.
161. Shi W,Han Y,Guan X,Rong J,Su W,Zha S,Tang Y,Du X,Liu G.Fluoxetine suppresses the immune responses of blood clams by reducing haemocyte viability, disturbing signal transduction and imposing physiological stress.Sci Total Environ. 2019 Sep 15;683:681-689
162. Wang H,Kuang Y,Li J,Shen R,Sun R,Huang D,Sheng Z,Shi J,Zhang M,Huang F,Yang H,Fei J.Dnmt3a is required for the tumor stemness of B16 melanoma cells.ACTA BIOCH BIOPH SIN. 2019 Sep 6;51(9):945-952
163. He J,Wang L,Zhang C,Shen W,Zhang Y,Liu T,Hu H,Xie X,Luo F.Interleukin-9 promotes tumorigenesis through augmenting angiogenesis in non-small cell lung cancer.Int Immunopharmacol. 2019 Oct;75:10576
164. Sun X,Zhang X,Zhai H,Zhang D,Ma S.Chicoric acid (CA) induces autophagy in gastric cancer through promoting endoplasmic reticulum (ER) stress regulated by AMPK.Biomed Pharmacother. 2019 Oct;118:109144
165. Guan MM,Rao QX,Huang ML,Wang LJ,Lin SD,Chen Q,Liu CH.Long Noncoding RNA TP73-AS1 Targets MicroRNA-329-3p to Regulate Expression of the SMAD2 Gene in Human Cervical Cancer Tissue and Cell Lines.MED SCI MONITOR. 2019 Oct 30;25:8131-8141
166. Gao Y,Li X,Gao J,Zhang Z,Feng Y,Nie J,Zhu W,Zhang S,Cao J.Metabolomic Analysis of Radiation-Induced Lung Injury in Rats: The Potential Radioprotective Role of Taurine.Dose Response. 2019 Oct 30;17(4):1559325819883479.
167. Chen R,Wang M,Fu S,Cao F,Duan P,Lu J.MicroRNA-204 may participate in the pathogenesis of hypoxic-ischemic encephalopathy through targeting KLLN.Exp Ther Med. 2019 Nov;18(5):3299-3306
168. Li Q,Wang Q,Zhang Q,Zhang J.Collagen prolyl 4-hydroxylase 2 predicts worse prognosis and promotes glycolysis in cervical cancer.Am J Transl Res. 2019 Nov 15;11(11):6938-6951. eCollection 2019
169. Shen J,Sun B,Yu C,Cao Y,Cai C,Yao J.Choline and methionine regulate lipid

- metabolism via the AMPK signaling pathway in hepatocytes exposed to high concentrations of nonesterified fatty acids.*J Cell Biochem.* 2019 Nov 3
170. Tan Y,Jin Y,Wu X,Ren Z,PSMD1 and PSMD2 regulate HepG2 cell proliferation and apoptosis via modulating cellular lipid droplet metabolism.*BMC Mol Biol.* 2019 Nov 8;20(1):24
171. He C,Bai X,Li Y,Sun H,Kong X,Fu B,Chen L,Zhu K,Li P,Xu S.Runt-related transcription factor 1 contributes to lung cancer development by binding to tartrate-resistant acid phosphatase 5.*Cell Cycle.* 2019 Dec;18(23):3404-3419
172. Xie X,Ma L,Zhou Y,Shen W,Xu D,Dou J,Shen B,Zhou C.Polysaccharide enhanced NK cell cytotoxicity against pancreatic cancer via TLR4/MAPKs/NF- κ B pathway in vitro/vivo.*CARBOHYD POLYM.* 2019 Dec 1;225:115223
173. Guo J,Fang Y,Jiang F,Li L,Zhou H,Xu X,Ning W.Neohesperidin inhibits TGF- β 1/Smad3 signaling and alleviates bleomycin-induced pulmonary fibrosis in mice.*Eur J Pharmacol.* 2019 Dec 1;864:172712
174. Li S,Xie A,Li H,Zou X,Zhang Q.A self-assembled, ROS-responsive Janus-prodrug for targeted therapy of inflammatory bowel disease.*J Control Release.* 2019 Dec 28;316:66-78
175. Zhongjie Zhang,Yan Xu,Songyuan Chi,Longji Cui.MicroRNA-582-5p Reduces Propofol-induced Apoptosis in Developing Neurons by Targeting ROCK1*Curr Neurovasc Res.* 2020;17(2):140-146.;doi: 10.2174/156720261766200207124817
176. Kun Liu,Min Gao,Dongdong Qin,Hongqian Wang,Qixiu Lu.Serous BMP8A has Clinical Significance in the Ultrasonic Diagnosis of Thyroid Cancer and Promotes Thyroid Cancer Cell Progression.*Endocr Metab Immune Disord Drug Targets.* 2020;20(4):591-598.;doi: 10.2174/1871530319666191018170022.
177. Guoyong Lu,Peng Tian,Yongxin Zhu,Xiaohua Zuo,Xiaoqiang Li.LncRNA XIST knockdown ameliorates oxidative low-density lipoprotein-induced endothelial cells injury by targeting miR-204-5p/TLR4.*J BIOSCI BIOENG.* 2020;45:52.
178. Jifeng Zheng,Zhiyao Mao,Jianqin Zhang,Liqing Jiang,Ningfu Wang.Paeonol Pretreatment Attenuates Anoxia-Reoxygenation Induced Injury in Cardiac Myocytes via a BRCA1 Dependent Pathway.*CHEM PHARM BULL.* 2020;68(12):1163-1169.;doi: 10.1248/cpb.c20-00524
179. Yu Bai,Wei Wang,Ping Yin,Jian Gao,Lei Na,Yu Sun,Zhuo Wang,Zhongbo Zhang,Chenghai Zhao,Ruxolitinib Alleviates Renal Interstitial Fibrosis in UUO Mice.*Int J Biol Sci.* 2020 Jan 1;16(2):194-203.;doi: 10.7150/ijbs.39024
180. Weizhen Liu,Xiangyu Zeng,Yuping Yin,Chengguo Li,Wenchang Yang,Wenze Wan,Liang Shi,Guobin Wang,Kaixiong Tao,Peng Zhang.Targeting the WEE1 kinase strengthens the antitumor activity of imatinib via promoting KIT autophagic degradation in gastrointestinal stromal tumors.*Gastric Cancer.* 2020 Jan;23(1):39-51.;doi: 10.1007/s10120-019-00977-1
181. Zhibo Zheng,Shuai Xiang,Yingjie Wang,Yulei Dong,Zeng Li,Yongbo Xiang,Yanyan Bian,Bin Feng,Bo Yang,Xisheng Weng.NR4A1 promotes TNF- α -induced chondrocyte death and migration injury via activating the AMPK/Drp1/mitochondrial fission pathway.*Int J Mol Med.* 2020 Jan;45(1):151-161.;doi: 10.3892/ijmm.2019.4398
182. Kui Li,Zheng Zhou,Ji Li,Rui Xiang.miR-146b Functions as an Oncogene in Oral Squamous Cell Carcinoma by Targeting HBP1.*TECHNOL CANCER RES T.* Jan-Dec 2020;19:1533033820959404.;doi: 10.1177/1533033820959404
183. Liu W,Zeng X,Yin Y,Li C,Yang W,Wan W,Shi L,Wang G,Tao K,Zhang P.Targeting the WEE1 kinase strengthens the antitumor activity of imatinib via promoting KIT autophagic degradation in gastrointestinal stromal tumors.*Gastric Cancer.* 2020 Jan;23(1):39-51
184. Zheng Z,Xiang S,Wang Y,Dong Y,Li Z,Xiang Y,Bian Y,Feng B,Yang B,Weng X.NR4A1 promotes TNF- α -induced chondrocyte death and migration injury via activating the AMPK/Drp1/mitochondrial fission pathway.*Int J Mol Med.* 2020 Jan;45(1):151-161
185. Li L,Chen Q,Yu Y,Chen H,Lu M,Huang Y,Li P,Chang H.RKI-1447 suppresses colorectal carcinoma cell growth via disrupting cellular bioenergetics and mitochondrial dynamics.*J Cell Physiol.* 2020 Jan;235(1):254-266
186. Lei Wang,Weiwei Wang,Hongmei Zhao,Yanshan Liu,Jie Liu,Na Bai.Bioactive Effects of Low-Temperature Argon-Oxygen Plasma on a Titanium Implant Surface.*ACS Omega.* 2020 Feb 18;5(8):3996-4003.;doi: 10.1021/acsomega.9b03504
187. Xi Rao,Jihan Yang,Zilin Chen,Yidie Yuan,Qiubing Chen,Xue Feng,Lizhao Qin,Yongping Zhang.Tuning C-C sp2/sp3 ratio of DLC films in FCVA system for biomedical application.*Bioact Mater.* 2020 Feb 20;5(2):192-200.;doi: 10.1016/j.bioactmat.2020.02.009.
188. Xiong Zhang,Lan-Bing Zhu,Jia-Hui He,Hong-Qiu Zhang,Shu-Ya Ji,Chao-Nan Zhang,Na-Na Hou,Chen-Ping Huang,Jian-Hong Zhu.Paroxetine suppresses reactive microglia-mediated but not lipopolysaccharide-induced inflammatory responses in primary astrocytes.*J NEUROINFLAMM.* 2020 Feb 5;17(1):50.;doi: 10.1186/s12974-020-1712-0
189. Binchu Xu,Qingping Zhang,Xinlin Luo,Xinjie Ning,Juncheng Luo,Jian Guo,Qingchang Liu,Gengqiang Ling,Nan Zhou.Selenium nanoparticles reduce glucose metabolism and promote apoptosis of glioma cells through reactive oxygen species-dependent manner.*Neuroreport.* 2020 Feb 5;31(3):226-234.;doi: 10.1097/WNR.0000000000001386
190. Lingling Pang,Yun Cheng,Shenchun Zou,Jie Song.Long noncoding RNA SNHG7 contributes to cell proliferation, migration, invasion and epithelial to mesenchymal transition in non-small cell lung cancer by regulating miR-449a/TGIF2 axis.*Thorac Cancer.* 2020 Feb;11(2):264-276.;doi: 10.1111/1759-7714.13245
191. Qiating Zhuang,Fa Dai,Xuelin Zhao,Yina Shao,Ming Guo,Zhimeng Lv,Chenghua Li,Weiwei Zhang.Cloning and characterization of the virulence factor Hop from *Vibrio splendidus*.*MICROB PATHOGENESIS.* 2020 Feb;139:103900.;doi: 10.1016/j.micpath.2019.103900
192. Yun-Hu Zhang,Mei-Juan Shi,Kai-Le Li,Rui Xing,Zhuo-Hua Chen,Xue-Dong Chen,Yong-Feng Wang,Xiao-Fei Liu,Xin-Yin Liang,Yang-Hu Sima,Shi-Qing Xu.Impact of adding glucose-coated water-soluble silver nanoparticles to the silkworm larval diet on silk protein synthesis and related properties.*J BIOMAT SCI-POLYM E.* 2020 Feb;31(3):376-393.;doi: 10.1080/09205063.2019.1692642
193. Fei Mao,Bo Han,Diandong Jiang,Xiaoli Zhang,Tingting Pang,Youfei Fan.The Phosphodiesterase-5 Inhibitor Vardenafil Improves the Activation of BMP Signaling in Response to Hydrogen Peroxide.*CARDIOVASC DRUG THER.* 2020 Feb;34(1):41-52.;doi: 10.1007/s10557-020-06939-5
194. Pang L,Cheng Y,Zou S,Song J.Long noncoding RNA SNHG7 contributes to cell proliferation, migration, invasion and epithelial to mesenchymal transition in non-small cell lung cancer by regulating miR-449a/TGIF2 axis.*Thorac Cancer.* 2020 Feb;11(2):264-276
195. Zhang YH,Shi MJ,Li KL,Xing R,Chen ZH,Chen XD,Wang YF,Liu XF,Liang XY,Sima YH,Xu SQ.Impact of adding glucose-coated water-soluble silver nanoparticles to the silkworm larval diet on silk protein synthesis and related properties.*J BIOMAT SCI-POLYM E.* 2020 Feb;31(3):376-393
196. Zhuang Q,Dai F,Zhao X,Shao Y,Guo M,Lv Z,Li C,Zhang W.Cloning and characterization of the virulence factor Hop from *Vibrio splendidus*.*MICROB PATHOGENESIS.* 2020 Feb;139:103900
197. Lin-Feng Hu,Jing Feng,Xianling Dai,Yan Sun,Mingxin Xiong,Lili Lai,Shaoyu Zhong,Chao Yi,Geng Chen,Huanhuan Li,Qiufeng Yang,Qin Kuang,Tingting Long,Jianxia Zhan,Tingting Tang,Chenxu Ge,Jun Tan,Minxuan Xu,Oral Flavonoid Fisetin Treatment Protects Against Prolonged High-Fat-Diet-Induced Cardiac Dysfunction by Regulation of Multicombed Signaling.*J Nutr Biochem.* 2020 Mar;77:108253.;doi: 10.1016/j.jnubio.2019.108253
198. Yin-Xue Song,Yan-Mian Ou,Jing-Yu Zhou.Gracillin inhibits apoptosis and inflammation induced by lipopolysaccharide (LPS) to alleviate cardiac injury in mice via improving miR-29a.*BIOCHEM BIOPH RES CO.* 2020 Mar 12;523(3):580-587.;doi: 10.1016/j.bbrc.2019.11.129
199. Xingwei Chen,Jiajia Xu,Fengtai Suo,Changmin Yu,Duoteng Zhang,Jian Chen,Qiong Wu,Su Jing,Lin Li,Wei Huang.A novel naphthofluorescein-based probe for ultrasensitive point-of-care testing of zinc(II) ions and its bioimaging in living cells and zebrafishes.*SPECTROCHIM ACTA A.* 2020 Mar 15;229:117949.;doi: 10.1016/j.saa.2019.117949
200. Hong-Yan Meng,Li-Qing Chen,Li-Hui Chen.The inhibition by human MSCs-derived miRNA-124a overexpression exosomes in the proliferation and migration of rheumatoid arthritis-related fibroblast-like synoviocyte cell.*BMC MUSCULOSKELE DIS.* 2020 Mar 6;21(1):150.;doi: 10.1186/s12891-020-3159-y
201. Yufan Zhou,Yun Huang,Kuan Hu,Zeyu Zhang,Jiajin Yang,Zhiming Wang.HIF1A activates the transcription of lncRNA RAETIK to modulate hypoxia-induced glycolysis in hepatocellular carcinoma cells via miR-100-5p*Cell Death Dis.* 2020 Mar 9;11(3):176.;doi: 10.1038/s41419-020-2366-7
202. Kai Huang,Wenwen Yu,Sen Li,Xiao Guan,Jing Liu,Hongdong Song,Dandan Liu,Ruiqian Duan.Effect of embryo-remaining oat rice on the lipid profile and intestinal microbiota in high-fat diet fed rats.*Food Res Int.* 2020 Mar;129:108816.;doi: 10.1016/j.foodres.2019.108816
203. Bing Liu,Huali Wei,Ming Lan,Na Jia,Junmeng Liu,Meng Zhang.MicroRNA-21 mediates the protective effects of salidroside against hypoxia/reoxygenation-induced myocardial oxidative stress and inflammatory response.*Exp Ther Med.* 2020 Mar;19(3):1655-1664.;doi: 10.3892/etm.2020.8421
204. Yiling Zhang,Ningning Cui,Gang Zheng.Ubiquitination of P53 by E3 ligase MKRN2 promotes melanoma cell proliferation.*Oncol Lett.* 2020 Mar;19(3):1975-1984.;doi: 10.3892/ol.2020.11261
205. Tao Qian,Chengmin Liu,Yanyan Ding,Chen Guo,Renwei Cai,Xiaoxia Wang,Rong Wang,Kuo Zhang,Li Zhou,Yi Deng,Chuanyue Wu,Ying Sun.PINCH-1 interacts with myoferlin to promote breast cancer progression and metastasis.*Oncogene.* 2020 Mar;39(10):2069-2087.;doi: 10.1038/s41388-019-1135-5
206. Qian T,Liu C,Ding Y,Guo C,Cai R,Wang X,Wang R,Zhang K,Zhou L,Deng Y,Wu C,Sun Y.PINCH-1 interacts with myoferlin to promote breast cancer progression and metastasis.*Oncogene.* 2020 Mar;39(10):2069-2087
207. Huang K,Yu W,Li S,Guan X,Liu J,Song H,Liu D,Duan R.Effect of embryo-remaining oat rice on the lipid profile and intestinal microbiota in high-fat diet fed rats.*Food Res Int.* 2020 Mar;129:108816
208. Chen X,Xu J,Suo F,Yu C,Zhang D,Chen J,Wu Q,Jing S,Li L,Huang W.A novel naphthofluorescein-based probe for ultrasensitive point-of-care testing of zinc(II) ions and its bioimaging in living cells and zebrafishes.*SPECTROCHIM ACTA A.* 2020 Mar 15;229:117949
209. Gang Li,Longfeng Sun,Zhongyi Mu,Shibo Liu,Hongchen Qu,Qingpeng Xie,Bin Hu.MicroRNA-1298-5p Inhibits Cell Proliferation and the Invasiveness of Bladder Cancer Cells Via Down-Regulation of Connexin 43.*Biochem Cell Biol.* 2020 Apr;98(2):227-237.;doi: 10.1139/bcb-2019-0137
210. Shensen Wang,Xinhui Liu,Aamir Ali Khan,Huan Li,Muhammad Tahir,Xinlong Yan,Juan Wang,Hua Huang.miR-216a-mediated upregulation of TSPAN1 contributes to pancreatic cancer progression via transcriptional regulation of ITGA2.*Am J Cancer Res.* 2020 Apr 1;10(4):1115-1129
211. Dongqiang Song,Beili Xu,Dongmin Shi,Shuyu Li,Yu Cai,S100A6 promotes proliferation and migration of HepG2 cells via increased ubiquitin-dependent degradation of p53.*Open Med (Wars).* 2020 Apr 20;15(1):317-326.;doi: 10.1515/med-2020-0101
212. Kemin Yan,Xin Wang,Hui Pan,Linjie Wang,Hongbo Yang,Meijuan Liu,Huijuan Zhu,Fengying Gong.Safflower Yellow and Its Main Component HSYA Alleviate

- Diet-Induced Obesity in Mice: Possible Involvement of the Increased Antioxidant Enzymes in Liver and Adipose Tissue. *Front Pharmacol.* 2020 Apr 21;11:482.;doi: 10.3389/fphar.2020.00482
213. Xiuling Zhao,Junyu Nie,Yuyan Tang,Wengtan He,Kai Xiao,Chunying Pang,Xianwei Liang,Yangqing Lu,Ming Zhang.Generation of Transgenic Cloned Buffalo Embryos Harboring the EGFP Gene in the Y Chromosome Using CRISPR/Cas9-Mediated Targeted Integration. *Front Vet Sci.* 2020 Apr 23;7:199.;doi: 10.3389/fvets.2020.00199
214. Liheng Liu,Haili Jiang,Xiaoxin Wang,Xin Wang,Liyong Zou,STYX/FBXW7 axis participates in the development of endometrial cancer cell via Notch-mTOR signaling pathway. *BIOSCIENCE REP.* 2020 Apr 30;40(4):BSR20200057.;doi: 10.1042/BSR20200057
215. Binchu Xu,Xinlin Luo,Xinjie Ning,Juncheng Luo,Jian Guo,Qingchang Liu,Gengqiang Ling.miR-149 rs2292832 C allele enhances the cytotoxic effect of temozolomide against glioma cells. *Neuroreport.* 2020 Apr 8;31(6):498-506.;doi: 10.1097/WNR.0000000000001440
216. Jun Gao,Chao Dai,Xin Yu,Xiang-Bao Yin,Fan Zhou.LncRNA LEF1-AS1 silencing diminishes EZH2 expression to delay hepatocellular carcinoma development by impairing CEBPB-interaction with CDCA7. *Cell Cycle.* 2020 Apr;19(8):870-883.;doi: 10.1080/15384101.2020.1731052
217. W-J Wu,J Wang,J Liang,Q Zhou,Y Liang.Mocetinostat suppresses epidural fibrosis following laminectomy by inhibiting myofibroblast activation and increasing apoptosis. *EUR REV MED PHARMACO.* 2020 Apr;24(8):4467-4475.;doi:10.26355/eurrev_202004_21029
218. Shanshan Li,Fuzhong Zhang,Yang Yu,Qixiong Zhang.A dermatan sulfate-functionalized biomimetic nanocarrier for melanoma targeted chemotherapy.CARBOHYD POLYM. 2020 May 1;235:115983.;doi: 10.1016/j.carbpol.2020.115983
219. Yu Wande,Luo Jie,Zhang Aikai,Zheng Yaguo,Zhu Linlin,Gu Yue,Zhang Hang.Berberine alleviates pulmonary hypertension through Trx1 and β -catenin signaling pathways in pulmonary artery smooth muscle cells. *Exp Cell Res.* 2020 May 1;390(1):111910.;doi: 10.1016/j.yexcr.2020.111910
220. Yan-Ni Li,Ya Su.Remdesivir attenuates high fat diet (HFD)-induced NAFLD by regulating hepatocyte dyslipidemia and inflammation via the suppression of STING. *BIOCHEM BIOPH RES CO.* 2020 May 28;526(2):381-388.;doi: 10.1016/j.bbrc.2020.03.034
221. Xiao-Li Sun,Xin-Wu Zhang,Hong-Jun Zhai,Di Zhang,Shuang-Yu Ma.Magnoflorine inhibits human gastric cancer progression by inducing autophagy, apoptosis and cell cycle arrest by JNK activation regulated by ROS. *Biomed Pharmacother.* 2020 May;125:109118.;doi: 10.1016/j.biopha.2019.109118
222. Jiawen Zhang,Qinyi Zhang,Cong Sun,Yanjuan Huang,Jing Zhang,Qingying Wang.Clinical relevance of ARF/ARL family genes and oncogenic function of ARL4C in endometrial cancer. *Biomed Pharmacother.* 2020 May;125:110000.;doi: 10.1016/j.biopha.2020.110000
223. J-S Yang,P Liu,J-J Liu,L Chu,J Li,C Chen,L Yan,T-J Liu,H Chen,D-J Hao.Suberoylanilide hydroxamic acid attenuates epidural fibrosis via inhibiting myofibroblast differentiation and increasing fibroblast apoptosis. *EUR REV MED PHARMACO.* 2020 May;24(10):5726-5733.;doi:10.26355/eurrev_202005_21364
224. Li Z,Jiang T,Lu Q,Xu K,He J,Xie L,Chen Z,Zheng Z,Ye L,Xu K,Zhang H,Hu A.Berberine attenuated the cytotoxicity induced by t-BHP via inhibiting oxidative stress and mitochondria dysfunction in PC-12 cells. *Cell Mol Neurobiol.* 2020 May;40(4):587-602
225. Chunyan Li,Tingfeng Han,Run Li,Liming Fu,Lei Yue.miR-26a-5p mediates TLR signaling pathway by targeting CTGF in LPS-induced alveolar macrophage. *BIOSCIENCE REP.* 2020 Jun 26;40(6):BSR20192598.;doi: 10.1042/BSR20192598
226. Shaohua Guo,Junjie Peng,Yongle Xiao,Yanyan Liu,Weiwei Hao,Xin Yang,Hongning Wang,Rong Gao.The Construction and Immunoadjuvant Activities of the Oral Interleukin-17B Expressed by Lactobacillus plantarum NC8 Strain in the Infectious Bronchitis Virus Vaccination of Chickens.Vaccines (Basel). 2020 Jun 6;8(2):282.;doi: 10.3390/vaccines8020282.
227. Zhi-Xi Duan,Chao Tu,Qing Liu,Shuang-Qing Li,Yi-Han Li,Peng Xie,Zhi-Hong Li.Adiponectin receptor agonist AdipoRon attenuates calcification of osteoarthritis chondrocytes by promoting autophagy. *J Cell Biochem.* 2020 Jun;121(5-6):3333-3344.;doi: 10.1002/jcb.29605
228. Hongning Song,Linfeng Lai,Min Liu,Xuxia Wang,Jun Zhang,Shanyong Zhang.Investigating the role and mechanism of microRNA-19a in oral squamous cell carcinoma by targeting FOXO1. *Exp Ther Med.* 2020 Jun;19(6):3707-3715.;doi: 10.3892/etm.2020.8614
229. Na Li,Xue-Lian Liu,Fa-Li Zhang,Yu Tian,Min Zhu,Ling-Yu Meng,Paul W Dyce,Wei Shen,Lan Li.Whole-transcriptome analysis of the toxic effects of zearalenone exposure on ceRNA networks in porcine granulosa cells. *Environ Pollut.* 2020 Jun;261:114007.;doi: 10.1016/j.envpol.2020.114007
230. Sen Li,Furong Xian,Xiao Guan,Kai Huang,Wenwen Yu,Dandan Liu.Neural Protective Effects of Millet and Millet Polyphenols on High-Fat Diet-Induced Oxidative Stress in the Brain. *PLANT FOOD HUM NUTR.* 2020 Jun;75(2):208-214.;doi: 10.1007/s11130-020-0080-6
231. Ji'an Xia,Hongdong Song,Kai Huang,Sen Li,Xiao Guan.Purification and characterization of antioxidant peptides from enzymatic hydrolysate of mungbean protein. *J Food Sci.* 2020 Jun;85(6):1735-1741.;doi: 10.1111/1750-3841.15139
232. Huiming Deng,Ling Huang,Zhongkai Liao,Mi Liu,Qiang Li,Ronghua Xu.Itraconazole inhibits the Hedgehog signaling pathway thereby inducing autophagy-mediated apoptosis of colon cancer cells. *Cell Death Dis.* 2020 Jul 17;11(7):539.;doi: 10.1038/s41419-020-02742-0
233. Xin Zhang,Nianfeng Zhang,Juan Kan,Rui Sun,Sixue Tang,Zhihao Wang,Mengfei Chen,Jun Liu,Changhai Jin.Anti-inflammatory activity of alkali-soluble polysaccharides from *Arctium lappa* L. and its effect on gut microbiota of mice with inflammation. *Int J Biol Macromol.* 2020 Jul 1;154:773-787.;doi: 10.1016/j.ijbiomac.2020.03.111
234. Lei Shi,Guan Sun,Haifeng Zhu.Demethoxycurcumin analogue DMC-BH inhibits orthotopic growth of glioma stem cells by targeting JNK/ERK signaling. *AGING-US.* 2020 Jul 24;12(14):14718-14735.;doi: 10.1863/aging.103531
235. Xiancong Bu,Dong Li,Feng Wang,Qimeng Sun,Zixian Zhang.Protective Role of Astrocyte-Derived Exosomal microRNA-361 in Cerebral Ischemic-Reperfusion Injury by Regulating the AMPK/mTOR Signaling Pathway and Targeting CTSB. *Neuropsychiatr Dis Treat.* 2020 Jul 31;16:1863-1877.;doi: 10.2147/NDT.S260748.
236. Huiyuan Zhang,Xi Lu,Yuehan Hao,Ling Tang,Zhiyi He.MicroRNA-26a-5p alleviates neuronal apoptosis and brain injury in intracerebral hemorrhage by targeting RAN binding protein 9. *Acta Histochem.* 2020 Jul;122(5):151571.;doi: 10.1016/j.acthis.2020.151571
237. Ying Li,Jie Sun,Lei Gu,Xufang Gao.Protective effect of CTRP6 on cerebral ischemia/reperfusion injury by attenuating inflammation, oxidative stress and apoptosis in PC12 cells. *Mol Med Rep.* 2020 Jul;22(1):344-352.;doi: 10.3892/mmr.2020.11108
238. X-F Liu,K Wang,H-C Du.LncRNA SNHG6 regulating Hedgehog signaling pathway and affecting the biological function of gallbladder carcinoma cells through targeting miR-26b-5p. *EUR REV MED PHARMACO.* 2020 Jul;24(14):7598-7611.;doi: 10.26355/eurrev_202007_22258
239. Tao Wang,Zhongwei Zhang,Caiping Song,Lei Sun,Xinli Sui,Qun Qu,Jing Liu.Astragaloside IV protects retinal pigment epithelial cells from apoptosis by upregulating miR-128 expression in diabetic rats. *Int J Mol Med.* 2020 Jul;46(1):340-350.;doi: 10.3892/ijmm.2020.4588
240. Ying-Hui Kong,Su-Ping Xu,Juglanin administration protects skin against UVB-induced injury by reducing Nrf2-dependent ROS generation. *Int J Mol Med.* 2020 Jul;46(1):67-82.;doi: 10.3892/ijmm.2020.4589
241. Luyan Zhang,Xifa Wu,Yong Feng,Linlin Zheng,Jinbo Jian.Selenium donors inhibits osteoclastogenesis through inhibiting IL-6 and plays a pivotal role in bone metastasis from breast cancer. *TOXICOL RES-UK.* 2020 Aug 13;9(4):544-551.;doi: 10.1093/toxres/tfaa053
242. Wei Huang,Xueteng Li,Dawei Wang,Yinghao Sun,Qian Wang,Yue Bu,Fangfang Niu.Curcumin reduces LPS-induced septic acute kidney injury through suppression of lncRNA PVT1 in mice. *Life Sci.* 2020 Aug 1;254:117340.;doi: 10.1016/j.lfs.2020.117340
243. Shuge Sun,Wei Shi,Yu Tang,Yu Han,Xueying Du,Weishang Zhou,Yuan Hu,Chaocheng Zhou,Guangxu Liu.Immunotoxicity of petroleum hydrocarbons and microplastics alone or in combination to a bivalve species: Synergic impacts and potential toxication mechanisms. *Sci Total Environ.* 2020 Aug 1;728:138852.;doi: 10.1016/j.scitotenv.2020.138852
244. Hong Zhao,Jingjing Wan,Yu Zhu.Carboplatin Inhibits the Progression of Retinoblastoma Through lncRNA XIST/miR-200a-3p/NRP1 Axis. *DRUG DES DEV THER.* 2020 Aug 21;14:3417-3427.;doi: 10.2147/DDDT.S256813
245. Hongda Ding,Jinpeng Liu,Caibin Wang,Yang Su.NONO promotes hepatocellular carcinoma progression by enhancing fatty acids biosynthesis through interacting with ACLY mRNA. *Cancer Cell Int.* 2020 Aug 31;20:425.;doi: 10.1186/s12935-020-01520-4
246. Jinjin Tong,Mingwei Sun,Hua Zhang,Delian Yang,Yonghong Zhang,Benhai Xiong,Linshu Jiang.Proteomic analysis of bovine mammary epithelial cells after in vitro incubation with *S. agalactiae*: potential biomarkers. *Vet Res.* 2020 Aug 3;51(1):98.;doi: 10.1186/s13567-020-00808-7
247. Y-X Gao,H-X Gao,X-Y Xu,F-K Ding.Effects of lncRNA MALAT1 and lncRNA NKILA on proliferation, invasion and apoptosis of retinoblastoma. *EUR REV MED PHARMACO.* 2020 Aug;24(16):8296-8307.;doi: 10.26355/eurrev_202008_22262
248. Jing Huang,Zhen-Lin Gu,Wei Chen,Ying-Ying Xu,Ming Chen.Knockdown of ubiquitin-specific peptidase 13 inhibits cell growth of hepatocellular carcinoma by reducing c-Myc expression. *Kaohsiung J Med Sci.* 2020 Aug;36(8):615-621.;doi: 10.1002/kjm2.12209
249. Dongjian Ying,Xinhua Zhou,Yi Ruan,Luolu Wang,Xiang Wu.LncRNA Gm4419 induces cell apoptosis in hepatic ischemia-reperfusion injury via regulating the miR-455-SOX6 axis. *Biochem Cell Biol.* 2020 Aug;98(4):474-483.;doi: 10.1139/bcb-2019-0331
250. Yunpeng Zhu,Shiliang Liu,Chunxiang Feng,Chang Liu,Zhixian Wang,Kai Yu,Jing Wang,Xiaoyong Zeng.The Delivery Materials with Chemotherapy Drugs for Treatment of the Positive Margin in Solid Tumors. *TISSUE ENG.* 2020 Sep 21.;doi: 10.1089/ten.TEA.2020.0076.
251. Yu Liao,Ziyan Wang,Lixin Wang,Yanzhao Lin,Ziyi Ye,Xufang Zeng,Fangning Wei.MicroRNA-27a-3p directly targets FosB to regulate cell proliferation, apoptosis, and inflammation responses in immunoglobulin a nephropathy. *BIOCHEM BIOPH RES CO.* 2020 Sep 3;529(4):1124-1130.;doi: 10.1016/j.bbrc.2020.06.115
252. Guanchen Zhu,Kaikai Wang,Haixiang Qin,Xiaozhi Zhao,Wei Chen,Linfeng Xu,Wenmin Cao,Hongqian Guo.Internal cross-linked polymeric nanoparticles with dual sensitivity for combination therapy of muscle-invasive bladder cancer. *J NANOBIOTECHNOL.* 2020 Sep 4;18(1):124.;doi: 10.1186/s12951-020-00686-3
253. Chunyu Huang,Chang Zhu,Jie Chen,Kaibin Huang,Fang Li,Shunkai Ding,Ligang Xia,Wei Jiang,Yang Li.Nano-Platelets as an Oxygen Regulator for Augmenting Starvation Therapy Against Hypoxic Tumor. *Front Bioeng Biotechnol.* 2020 Sep

- 4;8:571993.;doi: 10.3389/fbioe.2020.571993.
254. Wei Shi,Yu Han,Shuge Sun,Yu Tang,Weishang Zhou,Xueying Du,Guangxu Liu.Immunotoxicities of microplastics and sertraline, alone and in combination, to a bivalve species: size-dependent interaction and potential toxication mechanism.J Hazard Mater. 2020 Sep 5;396:122603.;doi: 10.1016/j.jhazmat.2020.122603
255. Shufang Li,Meng Zhang,Bei Zhang.MTMR14 protects against hepatic ischemia-reperfusion injury through interacting with AKT signaling in vivo and in vitro.Biomed Pharmacother. 2020 Sep;129:110455.;doi: 10.1016/j.biopharm.2020.110455
256. Peng Huang,Dongbai Yang,Lianzhi Yu,Yu Shi.Downregulation of lncRNA ZFAS1 protects H9c2 cardiomyocytes from ischemia/reperfusion-induced apoptosis via the miR-590-3p/NF- κ B signaling pathway.Mol Med Rep. 2020 Sep;22(3):2300-2306.;doi: 10.3892/mmr.2020.11340
257. Ying-Ying Xu,Wan-Wei Wang,Jing Huang,Wei-Guo Zhu.Ellagic acid induces esophageal squamous cell carcinoma cell apoptosis by modulating SHP-1/STAT3 signaling.Kaohsiung J Med Sci. 2020 Sep;36(9):699-704.;doi: 10.1002/kjm2.12224
258. Chenxu Ge,Jun Tan,Shaoyu Zhong,Lili Lai,Geng Chen,Junjie Zhao,Chao Yi,Longyan Wang,Lewei Zhou,Tingting Tang,Qiufeng Yang,Deshuai Lou,Qiang Li,Yekuan Wu,Linfeng Hu,Gang Kuang,Xi Liu,Bochu Wang,Minxuan Xu,Nrf2 mitigates prolonged PM2.5 exposure-triggered liver inflammation by positively regulating SIKE activity: Protection by Juglanin.Redox Biol. 2020 Sep;36:101645.;doi: 10.1016/j.redox.2020.101645
259. Jie Xiong,Jianbo Ni,Congying Chen,Kezhou Wang.miR-148a-3p regulates alcoholic liver fibrosis through targeting ERBB3.Int J Mol Med. 2020 Sep;46(3):1003-1012.;doi: 10.3892/ijmm.2020.4655
260. Leilei Xu,Qin Zhang,Changhua Li,Fu Hua,Xiaoping Liu.Ultrasound Microbubble-Mediated microRNA-505 Regulates Cervical Cancer Cell Growth via AKT2.ANAL CELL PATHOL. 2020 Oct 15;2020:3731953.;doi: 10.1155/2020/3731953
261. Shujun Wang,Wei Liu,Jin Wang,Xia Bai.Curculigoside inhibits ferroptosis in ulcerative colitis through the induction of GPX4.Life Sci. 2020 Oct 15;259:118356.;doi: 10.1016/j.lfs.2020.118356
262. Zhi-Gao Hu,Shun Zhang,Yu-Bing Chen,Wei Cao,Zhi-Yang Zhou,Jiang-Nan Zhang,Ge Gao,Song-Qing He.DTNA promotes HBV-induced hepatocellular carcinoma progression by activating STAT3 and regulating TGF β 1 and P53 signaling.Life Sci. 2020 Oct 1;258:118029.;doi: 10.1016/j.lfs.2020.118029
263. Changfeng Song,Wen Xu,Hongkun Wu,Xiaotong Wang,Qianyi Gong,Chang Liu,Jianwen Liu,Lin Zhou.Photodynamic therapy induces autophagy-mediated cell death in human colorectal cancer cells via activation of the ROS/JNK signaling pathway.Cell Death Dis. 2020 Oct 31;11(10):938.;doi: 10.1038/s41419-020-03136-y
264. Huajun Wang,Guangying Zheng.LncRNA NEAT1 promotes proliferation, migration, invasion and epithelial-mesenchymal transition process in TGF- β 2-stimulated lens epithelial cells through regulating the miR-486-5p/SMAD4 axis.Cancer Cell Int. 2020 Oct 31;20(1):529.;doi: 10.1186/s12935-020-01619-8
265. Hui-Ling Cao,Ming-Qiang Gu,Zhuo Sun,Zhong-Jian Chen.miR-144-3p Contributes to the Development of Thyroid Tumors Through the PTEN/PI3K/AKT Pathway.Cancer Manag Res. 2020 Oct 9;12:9845-9855.;doi: 10.2147/CMAR.S265196
266. Weicheng Wu,Jiaquan Liu,Chengbin Yang,Zihui Xu,Jianbao Huang,Jiyan Lin.Astrocyte-derived exosome-transported microRNA-34c is neuroprotective against cerebral ischemia/reperfusion injury via TLR7 and the NF- κ B/MAPK pathways.Brain Res Bull. 2020 Oct;163:84-94.;doi: 10.1016/j.brainresbull.2020.07.013
267. Wenhui Zha,Shuang Guan,Ning Liu,Yang Li,Yuan Tian,Yang Chen,Yan Wang,Fuji Wu.Let-7a inhibits Bcl-xL and YAP1 expression to induce apoptosis of trophoblast cells in early-onset severe preeclampsia.Sci Total Environ. 2020 Nov 25;745:139919.;doi: 10.1016/j.scitotenv.2020.139919
268. Yi Zhang,Yina Shao,Zhimeng Lv,Chenghua Li.MiR-210 regulates coelomocyte proliferation through targeting E2F3 in Apostichopus japonicus.FISH SHELLFISH IMMUN. 2020 Nov;106:583-590.;doi: 10.1016/j.fsi.2020.08.036
269. Shuhua Shen,Kungen Wang,Yihui Zhi,Wei Shen,Liquan Huang.Gypenosides improves nonalcoholic fatty liver disease induced by high-fat diet induced through regulating LPS/TLR4 signaling pathway.Cell Cycle. 2020 Nov;19(22):3042-3053.;doi: 10.1080/15384101.2020.1829800
270. Fang Zhang,Tao Pan,Xiaohui Wu,Xingchun Gao,Zhikui Li,Xinling Ren.Non-cytotoxic doses of shikonin inhibit lipopolysaccharide-induced TNF- α expression via activation of the AMP-activated protein kinase signaling pathway.Exp Ther Med. 2020 Nov;20(5):45.;doi: 10.3892/etm.2020.9173
271. Jun Fu,Jun Mao,Chun Wang.The microRNA-152/human leukocyte antigen-G axis affects proliferation and immune escape of non-small cell lung cancer cells.J Int Med Res. 2020 Nov;48(11):300060520970758.;doi: 10.1177/0300060520970758
272. Xiaoyan Yu,Jie Bao,Xinyi Cui,Fengxia DU,Yuefei Wang,Lili Bi,Jun Sun,Ling Li.Pyrrolidinedithiocarbamic Acid Ammonium Salt Inhibits Apoptosis and Phenotypic Transformation of Co-Culture of Myeloma Cells and Renal Tubular Epithelial Cells by Reducing the Secretion of Light Chain.J Public Health. 2020 Nov;49(11):2078-2086.;doi: 10.18502/ijph.v49i11.4723
273. Guoxiu Cao,Bei Chen,Xian Zhang,Hongyun Chen.Human Adipose-Derived Mesenchymal Stem Cells-Derived Exosomal microRNA-19b Promotes the Healing of Skin Wounds Through Modulation of the CCL1/TGF- β Signaling Axis.Clin Cosmet Investig Dermatol. 2020 Dec 15;13:957-971.;doi: 10.2147/CCID.S274370
274. Nengwen Xia,Hui Wang,Xueliang Liu,Qi Shao,Da Ao,Yulin Xu,Sen Jiang,Jia Luo,Jiajia Zhang,Nanhua Chen,François Meurens,Wanglong Zheng,Jianzhong Zhu.African Swine Fever Virus Structural Protein p17 Inhibits Cell Proliferation through ER Stress-ROS Mediated Cell Cycle Arrest.VIRUSES-BASEL. 2020 Dec 24;13(1):21.;doi: 10.3390/v13010021. (IF 3.816)
275. Xiaolong Sun,Xu Wang,Zhenyu Zhao,Jing Chen,Cheng Li,Gang Zhao.Paeoniflorin accelerates foot wound healing in diabetic rats through activating the Nrf2 pathway.Acta Histochem. 2020 Dec;122(8):151649.;doi: 10.1016/j.acthis.2020.151649
276. Shanshan Li,Hui Yang,Min Zhao,Linli Gong,Yahong Wang,Zhiyong Lv,Yuhang Quan,Zhonghui Wang.Demethylation of HACE1 gene promoter by propofol promotes autophagy of human A549 cells.Oncol Lett. 2020 Dec;20(6):280.;doi: 10.3892/ol.2020.12143
277. H Ma,C-M Liu,S-Q Shao,Y-Y Song,J Zhou,L-N Cao,H-Q Yin,S-L Yin.Myriocin alleviates Oleic/Palmitate induced chondrocyte degeneration via the suppression of ceramide.EUR REV MED PHARMACO. 2020 Dec;24(24):12938-12947.;doi: 10.26355/eurrev_202012_24197
278. Congfeng Tang,Xuejiao Liu,Hailing Zhu,Quan Lu.Antagonizing effect of icaritin on apoptosis and injury of hippocampal neurocytes induced by amyloid beta via GR/BDNF signaling pathway.J RECEPT SIG TRANSD. 2020 Dec;40(6):550-559.;doi: 10.1080/10799893.2020.1768547
279. Tong Chen,Shengnan Liu,Menglin Zheng,Yixuan Li,Ling He.The effect of geniposide on chronic unpredictable mild stress-induced depressive mice through BTK/TLR4/NF- κ B and BDNF/TrkB signaling pathways.Phytother Res. 2021 Feb;35(2):932-945.;doi: 10.1002/ptr.6846
280. Xiaolong Sun,Xu Wang,Zhenyu Zhao,Jing Chen,Cheng Li,Gang Zhao.Paeoniflorin inhibited nod-like receptor protein-3 inflammasome and NF- κ B-mediated inflammatory reactions in diabetic foot ulcer by inhibiting the chemokine receptor CXCR2.Drug Dev Res. 2021 May;82(3):404-411.;doi: 10.1002/ddr.21763
281. Junpeng Feng,Jianhang Li,Peng Qie,Zhenhua Li,Yanzhao Xu,Ziqiang Tian.Long non-coding RNA (lncRNA) PGMP4-AS1 inhibits lung cancer progression by up-regulating leucine zipper tumor suppressor (LZTS3) through sponging microRNA miR-1275Bioengineered. 2021 Dec;12(1):196-207.;doi: 10.1080/21655979.2020.1860492

注：更多使用本产品的文献请参考产品网页。

Version 2021.09.01