



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

## GAPDH抗体(小鼠单抗)

产品编号	产品名称	包装
AG019	GAPDH抗体(小鼠单抗)	>40次

### 产品简介:

来源	用途	可检测样品	抗体类型	GAPDH分子量
Mouse	WB, IF, IHC, ELISA	Mam, C, Fi, Fr	IgG1	~36kD

WB, Western blot; IF, Immunofluorescence; IHC, Immunohistochemistry.

Mam, mammalian, including human, mouse, rat, pig, rabbit, dog, cat; C, chicken; Fi, fish; Fr, frog. 不能用于检测 bovine和yeast样品。

- 本GAPDH抗体(GAPDH antibody, 也称为G3PDH antibody)为进口分装, 用从兔肌肉纯化获得的GAPDH作为抗原制备而成的抗GAPDH小鼠单克隆抗体。克隆号为6C5。
- GAPDH (Glyceraldehyde-3-phosphate dehydrogenase)是糖酵解(glycolysis)过程中的关键酶之一。GAPDH由4个分子量约为36kD的亚基组成, 总的分子量为146kD。在SDS-PAGE凝胶电泳时解聚为单体, 显示的分子量约为36kD。哺乳动物的GAPDH除了在糖酵解过程中起作用外, 还和membrane fusion, microtubule bundling, RNA出核运输, DNA复制和DNA修复等有关, 并和前列腺癌、神经细胞凋亡、神经退行性疾病等相关。
- GAPDH几乎在所有组织和细胞中组成性高表达。只有缺氧和糖尿病等情况可以在某些细胞中上调GAPDH的蛋白水平。
- GAPDH在各种组织和细胞中都组成性高表达, 因此被广泛用于Western时上样量是否一致的参照/loading control)。
- 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	IF	IHC	ELISA
1:500-1000	1:400	1:400	1:1000-5000

- 本抗体如果用于常规的Western检测, 至少可以检测40次。

### 包装清单:

产品编号	产品名称	包装
AG019-1	GAPDH抗体(小鼠单抗)	40μl
AG019-2	Western一抗稀释液	40ml
-	说明书	1份

### 保存条件:

GAPDH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:

- 在Western实验后, 请注意回收稀释的抗体。回收的抗体在进行Western实验时至少可以重复使用10次。稀释后的抗体, 包括已经使用过的稀释抗体, 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10000g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菌等情况, 则可以考虑废弃该抗体。
- 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: 500-1000用碧云天提供的Western一抗稀释液稀释抗体。
- b. 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1-2小时, 确保稀释的抗体至少能在摇动的瞬间覆盖蛋白膜。通常与一抗4°C缓慢摇动过夜效果更好一些。
- c. 回收稀释的一抗, 4°C保存以备下次继续使用。
- d. 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: <http://www.beyotime.com/support/western.htm>

## 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. Xu H, Wang P, Fu Y, Zheng Y, Tang Q, Si L, You J, Zhang Z, Zhu Y, Zhou L, Wei Z, Lin B, Hu L, Kong X. . Length of the ORF, position of the first AUG and the Kozak motif are important factors in potential dual-coding transcripts. *Cell Res.* 2010;20(4):445-57.
2. Yang M, Yuan F, Li P, Chen Z, Chen A, Li S, Hu C. . Interferon regulatory factor 4 binding protein is a novel p53 target gene and suppresses cisplatin-induced apoptosis of breast cancer cells. *Mol Cancer.* 2012 Aug 13;11:54. (IF 15.302)
3. Cao W, Lin S, Xia QQ, Du YL, Yang Q, Zhang MY, Lu YQ, Xu J, Duan SM, Xia J, Feng G, Xu J, Luo JH. . Gamma Oscillation Dysfunction in mPFC Leads to Social Deficits in Neuroligin 3 R451C Knockin Mice. *Neuron.* 2018 Mar 21 97(6):1253-1260.e7.
4. Liu L, Jin X, Hu CF, Zhang YP, Zhou Z, Li R, Shen CX. . Amphiregulin enhances cardiac fibrosis and aggravates cardiac dysfunction in mice with experimental myocardial infarction partly through activating EGFR-dependent pathway. *Basic Res Cardiol.* 2018 Jan 18;113(2):12.
5. Xu XY, Li XT, Peng SW, Xiao JF, Liu C, Fang G, Chen KC, Chen GQ. . The behaviour of neural stem cells on polyhydroxyalkanoate nanofiber scaffolds. *Biomaterials.* 2010;31(14):3967-75.
6. Zhang W, Chen J, Tao J, Hu C, Chen L, Zhao H, Xu G, Heng BC, Ouyang HW. . The promotion of osteochondral repair by combined intra-articular injection of parathyroid hormone-related protein and implantation of a bi-layer collagen-silk scaffold. *Biomaterials.* 2013 Aug;34(25):6046-57.
7. Yang Y, Wang Y, Yang X, Wang Z, Lian Y, Yang Y, Li X, Gao X, Chen J, Shu Y, Cheng L, Liao Y, Liu K. . The Antibody Targeting the E314 Peptide of Human Kv1.3 Pore Region Modulates Key Cholesterol-Metabolism-Associated Molecules in Human Macrophages. *P NATL ACAD SCI USA.* 2013;110:(24):E2239-48.
8. Wei Cao, Jia-Hui Li, Shen Lin, Qiang-Qiang Xia, Yong-Lan Du, Qian Yang, Ying-Zhi Ye, Ling-Hui Zeng, Xiang-Yao Li, Junyu Xu, Jian-Hong Luo. . NMDA receptor hypofunction underlies deficits in parvalbumin interneurons and social behavior in neuroligin 3 R451C knockin mice *Cell Rep.* 2022 Dec 6;41(10):111771.
9. Xue X, Gao W, Sun B, Xu Y, Han B, Wang F, Zhang Y, Sun J, Wei J, Lu Z, Zhu Y, Sato Y, Sekido Y, Miao Y, Kondo Y. . Vasohibin 2 is transcriptionally activated and promotes angiogenesis in hepatocellular carcinoma. *Oncogene.* 2013 Mar 28;32(13):1724-34.
10. Huang MY, Xuan F, Liu W, Cui HJ. . MINA controls proliferation and tumorigenesis of glioblastoma by epigenetically regulating cyclins and CDKs via H3K9me3 demethylation. *Oncogene.* 2017 Jan 19;36(3):387-396.
11. Xiaofen Wang, Ying Tian, Xiang Liao, Yuxia Tang, Qianqian Ni, Jing Sun, Ying Zhao, Junjie Zhang, Zhaogang Teng, Guangming Lu. . Enhancing selective photosensitizer accumulation and oxygen supply for high-efficacy photodynamic therapy toward glioma by 5-aminolevulinic acid loaded nanoparticle *J COLLOID INTERF SCI.* 2020 Apr 1;565:483-493.
12. An Y, Cai B, Chen J, Lv N, Yao J, Xue X, Tu M, Tang D, Wei J, Jiang K, Wu J, Li Q, Gao W, Miao Y. . MAP3K10 promotes the proliferation and decreases the sensitivity of pancreatic cancer cells to gemcitabine by upregulating Gli-1 and Gli-2. *Cancer Lett.* 2013 Feb 28;329(2):228-35.
13. Yan C, Ji Y, Huang T, Yu F, Gao Y, Gu Y, Qi Q, Du J, Dai J, Ma H, Jin G. . An esophageal adenocarcinoma susceptibility locus at 9q22 also confers risk to esophageal squamous cell carcinoma by regulating the function of BARX1. *Cancer Lett.* 2018 May 1;421:103-111.
14. Wang J, Liu J, Sun G, Meng H, Wang J, Guan Y, Yin Y, Zhao Z, Dong X, Yin S, Li H, Cheng Y, Wu H, Wu A, Yu X, Chen L. . Glioblastoma extracellular vesicles induce the tumour-promoting transformation of neural stem cells. *Cancer Lett.* 2019 Dec 1 466:1-12.
15. Kang Y, Lu L, Lan J, Ding Y, Yang J, Zhang Y, Zhao Y, Zhang T, Ho RYJ. . Redox-responsive polymeric micelles formed by conjugating gambogic acid with bioreducible poly(amido amine)s for the co-delivery of docetaxel and MMP-9 shRNA. *Acta Biomater.* 2018 Mar 1;68:137-153.
16. Wang Y, Deng X, Yu C, Zhao G, Zhou J, Zhang G, Li M, Jiang D, Quan Z, Zhang Y. . Synergistic inhibitory effects of capsaicin combined with cisplatin on human osteosarcoma in culture and in xenografts. *J EXP CLIN CANC RES.* 2018 Oct 16;37(1):251.
17. Zhou SF, Ma J, Qu HT, Liu ZT, He WD, Wang JD, Dou AX, Zhang N, Liu JL, Guo CS, Shi Y, Hou M, Peng J. . Characterization of Th1- and Th2-associated Chemokine Receptor Expression in Spleens of Patients with ImmuneThrombocytopenia. *J Clin Immunol.* 2013 Jul;33(5):938-46.
18. Fu R, Deng Q, Zhang H, Hu X, Li Y, Liu Y, Hu J, Luo Q, Zhang Y, Jiang X, Li L, Yang C, Gao N. . A novel autophagy inhibitor berbamine blocks SNARE-mediated autophagosome-lysosome fusion through upregulation of BNIP3. *Cell Death Dis.* 2018 Feb 14;9(2):243.
19. Ning Zhang, Yu-Nan Tian, Li-Na Zhou, Meng-Zhu Li, Hua-Dong Chen, Shan-Shan Song, Xia-Juan Huan, Xu-Bin Bao, Ao Zhang, Ze-Hong Miao, Jin-Xue He. . Glycogen synthase kinase 3 $\beta$  inhibition synergizes with PARP inhibitors through the induction of homologous recombination deficiency in colorectal cancer *Cell Death Dis.* 2021 Feb 15;12(2):183.
20. Jin G, Li Y, Zhu Y, Du L, Yan J, Yang Q. . SMS regulates the expression and function of P-gp and MRP2 in Caco-2 cells. *Cell Biol Toxicol.* 2016 Dec;32(6):483-97.
21. Zhang S, Tu Y, Sun YM, Li Y, Wang RM, Cao Y, Li L, Zhang LC, Wang ZB. . Swiprosin-1 deficiency impairs macrophage immune response of septic mice. *JCI Insight.* 2018 Feb 8;3(3). pii: 95396.
22. Wu H, Chen Y, Wang ZY, Li W, Li JQ, Zhang L, Lu YJ. . Involvement of p21 (waf1) in merlin deficient sporadic vestibular schwannomas. *Neuroscience.* 2010;170(1):149-55.
23. Shi H, Wang Q, Zhang Q, Leng L, Li H. . Tissue expression characterization of chicken adipocyte fatty acid-binding protein and its expression difference between fat and lean birds in abdominal fat tissue. *J POULT SCI.* 2010 Feb;89(2):197-202.
24. Zhao Z, Huang L, Wu H, Li Y, Zhang L, Yin Y, Xiang Z, Zhao Z. . Neuropeptide S mitigates spatial memory impairment induced by rapid eye movement sleepdeprivation in rats. *Neuroreport.* 2010 Jun 23;21(9):623-8.
25. He J, Xiao Z, Chen X, Chen M, Fang L, Yang M, Lv Q, Li Y, Li G, Hu J, Xie X. . The expression of functional Toll-like receptor 4 is associated with proliferation and maintenance of stem cell phenotype in endothelial progenitor cells (EPCs). *J Cell Biochem.* 2010 Sep 1;111(1):179-86.
26. Wang J, Ruan K. . miR-335 is involved in the rat epididymal development by targeting the mRNA of RASA1. *BIOCHEM BIOPH RES CO.* 2010 Nov 12;402(2):222-7.
27. Shi H, Wang Q, Wang Y, Leng L, Zhang Q, Shang Z, Li H. . Adipocyte fatty acid-binding protein: an important gene related to lipid metabolism in chicken adipocytes. *COMP BIOCHEM PHYS B.* 2010 Dec;157(4):357-63.
28. 张庆秋 石慧 丁宁 王宇祥 李辉 王启贵. . 鸡肝脏胆汁酸结合蛋白(L-BABP)抗血清制备及组织表达特性分析. *农业生物技术学报.* 2011;19(3):571-6.
29. Wang ZQ, Wang N, van der Maarel S, Murong SX, Wu ZY. . Distinguishing the 4qA and 4qB variants is essential for the diagnosis of facioscapulohumeral muscular dystrophy in the Chinese population. *Eur J Hum Genet.* 2011 Jan;19(1):64-9.
30. Shi H, Zhang Q, Wang Y, Yang P, Wang Q, Li H. . Chicken adipocyte fatty acid-binding protein knockdown affects expression of

- peroxisomeproliferator-activated receptor  $\gamma$  gene during oleate-induced adipocyte differentiation. *J POULT SCI.* 2011 May;90(5):1037-44.
31. Zhu ZT, Jiang XS, Wang BC, Meng WX, Liu HY, Tian Y. Andrographolide inhibits intimal hyperplasia in a rat model of autogenous vein grafts. *Cell Biochem Biophys.* 2011 Jul;60(3):231-9.
  32. Zhang Y, Dong J, Zhu X, Wang W, Yang Q. The effect of sphingomyelin synthase 2 (SMS2) deficiency on the expression of drug transportersin mouse brain. *Biochem Pharmacol.* 2011 Aug 1;82(3):287-94.
  33. Wang J, Wu Z, Jin Q. COPI Is Required for Enterovirus 71 Replication. *PLoS One.* 2012;7(5):e38035.
  34. Zhang H, Duan CJ, Chen W, Wang SQ, Zhang SK, Dong S, Cheng YD, Zhang CF. Clinical significance of SH2B1 adaptor protein expression in non-small cell lung cancer. *ASIAN PAC J CANCER P.* 2012;13(5):2355-62.
  35. Zong L, Qu Y, Xu MY, Dong YW, Lu LG. 18 $\alpha$ -glycyrrhetic acid down-regulates expression of type I and III collagen via TGF-B1/Smad signaling pathwayin human and rat hepatic stellate cells. *Int J Med Sci.* 2012;9(5):370-9.
  36. Zhou Y, Li G, Ji Y, Liu C, Zhu J, Lu Y. Cytoplasmic p21 induced by p65 prevents doxorubicin-induced cell death in pancreatic carcinomacell line. *J Biomed Sci.* 2012 Feb 4;19:15.
  37. Yu SC, Xiao HL, Jiang XF, Wang QL, Li Y, Yang XJ, Ping YF, Duan JJ, Jiang JY, Ye XZ, Xu SL, Xin YH, Yao XH, Chen JH, Chu WH, Sun W, Wang B, Wang JM, Zhang X, Bian XW. Connexin 43 reverses malignant phenotypes of glioma stem cells by modulating E-cadherin. *Stem Cells.* 2012 Feb;30(2):108-20.
  38. Wang G, Zhan Y, Wang H, Li W. ABT-263 sensitizes TRAIL-resistant hepatocarcinoma cells by downregulating the Bcl-2 family ofanti-apoptotic protein. *CANCER CHEMOTH PHARM.* 2012 Mar;69(3):799-805.
  39. Fu Y, Teng YY, Xu CW, Zhang X. The effect of bone marrow stem cells on the treatment of experimental autoimmune myasthenia gravis rat. *Chinese Journal of Contemporary Neurology and Neurosurgery.* 2012 Apr;12(2):161-5.
  40. Yu L, Lu M, Wang P, Chen X. Trichostatin A Ameliorates Myocardial Ischemia/Reperfusion Injury Through Inhibition ofEndoplasmic Reticulum Stress-induced Apoptosis. *Arch Med Res.* 2012 Apr;43(3):190-6.
  41. Chen J, Xia L, Wu X, Xu L, Nie D, Shi J, Xu X, Ni L, Lu S, Wu X, Zhu H, Shi W. Clinical significance and prognostic value of PAX3 expression in human glioma. *J Mol Neurosci.* 2012 May;47(1):52-8.
  42. Guo X, Li X, Xu Y, Sun T, Yang G, Wu Z, Li E. Identification of OASL d, a splice variant of human OASL, with antiviral activity. *INT J BIOCHEM CELL B.* 2012 Jul;44(7):1133-8.
  43. Song H, Yin W, Zeng Q, Jia H, Lin L, Liu X, Mu L, Wang R. Hemokinins modulate endothelium function and promote angiogenesis through neurokinin-1receptor. *INT J BIOCHEM CELL B.* 2012 Sep;44(9):1410-21.
  44. Wang D, Fang L, Li K, Zhong H, Fan J, Ouyang C, Zhang H, Duan E, Luo R, Zhang Z, Liu X, Chen H, Xiao S. Foot-and-mouth disease virus 3C protease cleaves NEMO to impair innate immune signaling. *J Virol.* 2012 Sep;86(17):9311-22.
  45. Liu J, Fang L, Cheng Q, Li L, Su C, Zhang B, Pei D, Yang J, Li W, Zheng J. Effects of G250 promoter controlled conditionally replicative adenovirus expressing Ki67-siRNA on renal cancercell. *Cancer Sci.* 2012 Oct;103(10):1880-8.
  46. Gong K, Chen C, Zhan Y, Chen Y, Huang Z, Li W. Autophagy-related gene 7 (ATG7) and reactive oxygen species/extracellular signal-regulated kinase regulate tetrindrine-induced autophagy in human hepatocellular carcinoma. *J Biol Chem.* 2012 Oct 12;287(42):35576-88.
  47. Zhao W. Comparison of L1 expression and secretion in glioblastoma and neuroblastoma cells. *Oncol Lett.* 2012 Oct;4(4):812-816.
  48. Gao C, Chen G, Liu L, Li X, He J, Jiang L, Zhu J, Xu Y. Impact of High Glucose and Proteasome Inhibitor MG132 on Histone H2A and H2B Ubiquitination in RatGlomerular Mesangial Cells. *J Diabetes Res.* 2013;2013:589474.
  49. Liu L, Gao C, Chen G, Li X, Li J, Wan Q, Xu Y. Notch Signaling Molecules Activate TGF-  $\beta$  in Rat Mesangial Cells under High Glucose Conditions. *J Diabetes Res.* 2013;2013:979702.
  50. Wang J, Du J, Wu Z, Jin Q. Quinacrine impairs enterovirus 71 RNA replication by preventing binding of polypyrimidine-tract binding proteinwith internal ribosome entry sites. *PLoS One.* 2013;8(1):e52954.
  51. Song L, Zhu Y, Jin M, Zang B. Hydroxysafflor yellow a inhibits lipopolysaccharide-induced inflammatory signal transduction in human alveolarepithelial A549 cells. *Fitoterapia.* 2013 Jan;84:107-14.
  52. Ma GF, Chen SY, Sun ZR, Miao Q, Liu YM, Zeng XQ, Luo TC, Ma LL, Lian JJ, Song DL. FoxP3 inhibits proliferation and induces apoptosis of gastric cancer cells by activating the apoptotic signalingpathway. *BIOCHEM BIOPH RES CO.* 2013 Jan 11;430(2):804-9.
  53. Pan HC, Lin JF, Ma LP, Shen YQ, Schachner M. Major vault protein promotes locomotor recovery and regeneration after spinal cord injury in adult zebrafish. *Eur J Neurosci.* 2013 Jan;37(2):203-11.
  54. Yang Y, Wang YF, Yang XF, Wang ZH, Lian YT, Yang Y, Li XW, Gao X, Chen J, Shu YW, Cheng LX, Liao YH, Liu K. Specific Kv1.3 blockade modulates key cholesterol-metabolism-associated molecules in human macrophagesexposed to ox-LDL. *J Lipid Res.* 2013 Jan;54(1):34-43.
  55. Duan Y, Zhou B, Su H, Liu Y, Du C. miR-150 regulates high glucose-induced cardiomyocyte hypertrophy by targeting the transcriptional co-activatorp300. *Exp Cell Res.* 2013 Feb 1;319(3):173-84.
  56. Zhang Z, Wang H, Sun Y, Li H, Wang N. Klf7 modulates the differentiation and proliferation of chicken preadipocyte. *ACTA BIOCH BIOPH SIN.* 2013 Apr;45(4):280-8.
  57. Luo L, Lu AM, Wang Y, Hong A, Chen Y, Hu J, Li X, Qin ZH. Chronic resistance training activates autophagy and reduces apoptosis of muscle cells by modulating IGF-1 and its receptors, Akt/mTOR and Akt/FOXO3a signaling in aged rats. *Exp Gerontol.* 2013 Apr;48(4):427-36.
  58. Liu Y, Guo Y, An S, Kuang Y, He X, Ma H, Li J, Lv J, Zhang N, Jiang C. Targeting Caspase-3 as Dual Therapeutic Benefits by RNAi Facilitating Brain-Targeted Nanoparticles in a RatModel of Parkinson's Disease. *PLoS One.* 2013 May 13;8(5):e62905.
  59. Bi LQ, Zhu R, Kong H, Wu SL, Li N, Zuo XR, Zhou SM, Kou JP, Yu BY, Wang H, Xie WP. Ruscogenin attenuates monocrotaline-induced pulmonary hypertension in rats. *Int Immunopharmacol.* 2013 May;16(1):7-16.
  60. Qiu LL, Wang X, Zhang XH, Zhang Z, Gu J, Liu L, Wang Y, Wang X, Wang SL. Decreased androgen receptor expression may contribute to spermatogenesis failure in rats exposed to lowconcentration of bisphenol A. *Toxicol Lett.* 2013 May 23;219(2):116-24.
  61. Zong L, Qu Y, Xu MY, Dong YW, Lu LG. 18 $\alpha$ -glycyrrhetic acid extracted from Glycyrhiza radix inhibits proliferation and promotes apoptosis of thehepatic stellate cell line. *J DIGEST DIS.* 2013 Jun;14(6):328-36.
  62. Sun J, Tu M, Han B, Xue X, Zhang Y, Wei J, Chen J, Lu Z, An Y, Cai B, Lv N, Jiang K, Miao Y, Gao W. Generation and characterization of rabbit polyclonal antibodies against Vasohibin-2 for determination of itsintracellular localization. *Int J Oncol.* 2013 Jul;43(1):255-61.
  63. Xu D, Wang Q, An Y, Xu L. miR-203 regulates the proliferation, apoptosis and cell cycle progression of pancreatic cancer cells by targetingSurvivin. *Mol Med Rep.* 2013 Aug;8(2):379-84.
  64. Lu L, Li C, Li D, Wang Y, Zhou C, Shao W, Peng J, You Y, Zhang X, Shen X. Cryptotanshinone inhibits human glioma cell proliferation by suppressing STAT3 signaling. *Mol Cell Biochem.* 2013 Sep;381(1-2):273-82.
  65. Chen Z, Liu G, Xiao Y, Lu P. Adrenomedullin22-52 suppresses high-glucose-induced migration, proliferation, and tube formation of human retinal endothelial cells. *Mol Vis.* 2014 Mar 3;20:259-69.
  66. Zhan A, Xu X, Chen L, Wang X, Yanfeng X, Dan W, Zhan Y, Shi Q. Decreased expression of Gab2 in patients with temporal lobe epilepsy and pilocarpine-induced rat model. *Synapse.* 2014 Apr;68(4):168-77.
  67. Zhang Q, Xie D, Wang S, You C, Monroig O, Tocher DR, Li Y. miR-17 is involved in the regulation of LC-PUFA biosynthesis in vertebrates: effects on liver expression of a fatty acyl desaturase in the marine teleost *Siganus canaliculatus*. *BBA-BIOMEMBRANES.* 2014 Jul;1841(7):934-43.

68. Zhang X, Jiang H, Gong Q, Fan C, Huang Y, Ling J. . Expression of high mobility group box 1 in inflamed dental pulp and its chemotactic effect on dental pulp cells. *BIOCHEM BIOPH RES CO.* 2014 Aug;8;450(4):1547-52. (IF 2.985)
69. Ma H, Shi J, Wang C, Guo L, Gong Y, Li J, Gong Y, Yun F, Zhao H, Li E. . Blockade of PDE4B limits lung vascular permeability and lung inflammation in LPS-induced acute lung injury. *BIOCHEM BIOPH RES CO.* 2014 Aug;8;450(4):1560-7.
70. Zhang T, Jiang B, Zou ST, Liu F, Hua D. . Overexpression of B7-H3 augments anti-apoptosis of colorectal cancer cells by Jak3-STAT3. *WORLD J GASTROENTERO.* 2015 Feb 14;21(6):1804-13.
71. Kodithuwakku ND, Feng YD, Zhang YY, Pan M, Fang WR, Li YM. . The molecular insight into the antihyperuricemic and renoprotective effect of Shuang Qi gout capsule in mice. *J Ethnopharmacol.* 2015 Apr 2;163:278-89.
72. Zhang YX, Yan L, Liu GY, Chen WJ, Gong WH, Yu JM. . Inhibition of janus kinase 2 by compound AG490 suppresses the proliferation of MDA-MB-231 cells via up-regulating SARI (suppressor of AP-1, regulated by IFN). *Iran J Basic Med Sci.* 2015 Jun;18(6):599-603.
73. Yang X, Xu X, Zhang Y, Wang S, Li M, Wang X. . Altered Expression of Intersectin-1L in Patients with Refractory Epilepsy and in Experimental Epileptic Rats. *Cell Mol Neurobiol.* 2015 Aug;35(6):871-80.
74. Zhou J, Xu G, Ma S, Li F, Yuan M, Xu H, Huang K. . Catalpol ameliorates high-fat diet-induced insulin resistance and adipose tissue inflammation by suppressing the JNK and NF- $\kappa$ B pathways. *BIOCHEM BIOPH RES CO.* 2015 Nov 27;467(4):853-8.
75. Liao K, Yan J, Mai K, Ai Q. . Dietary Olive and Perilla Oils Affect Liver Mitochondrial DNA Methylation in Large Yellow Croakers. *J Nutr.* 2015 Nov;145(11):2479-85.
76. Li Z, Mi X, Xiong Y, Xu X, Wang X, Wang L. . Elevated Expression of the Delta-Subunit of Epithelial Sodium Channel in Temporal Lobe Epilepsy Patients and Rat Model. *J Mol Neurosci.* 2015 Dec;57(4):510-8.
77. Zhou J, Xu G, Bai Z, Li K, Yan J, Li F, Ma S, Xu H, Huang K. . Selenite exacerbates hepatic insulin resistance in mouse model of type 2 diabetes through oxidative stress-mediated JNK pathway. *TOXICOL APPL PHARM.* 2015 Dec 15;289(3):409-18.
78. Jiang YQ, Chang GL, Wang Y, Zhang DY, Cao L, Liu J. . Geniposide Prevents Hypoxia/Reoxygenation-Induced Apoptosis in H9c2 Cells: Improvement of Mitochondrial Dysfunction and Activation of GLP-1R and the PI3K/AKT Signaling Pathway. *CELL PHYSIOL BIOCHEM.* 2016;39(1):407-21.
79. Jiang J, Wei J, Wu J, Gao W, Li Q, Jiang K, Miao Y. . Partial Portal Vein Arterialization Attenuates Acute Bile Duct Injury Induced by Hepatic Dearterialization in a Rat Model. *Biomed Res Int.* 2016;2016:7427246.
80. Wang C, Li Z, Han H, Luo G, Zhou B, Wang S, Wang J. . Impairment of object recognition memory by maternal bisphenol A exposure is associated with inhibition of Akt and ERK/CREB/BDNF pathway in the male offspring hippocampus. *Toxicology.* 2016 Feb 3;341-343:56-64.
81. Lin BC, Huang D, Yu CQ, Mou Y, Liu YH, Zhang DW, Shi FJ. . MicroRNA-184 Modulates Doxorubicin Resistance in Osteosarcoma Cells by Targeting BCL2L1. *MED SCI MONITOR.* 2016 May 25;22:1761-5.
82. Gozali MV, Yi F, Zhang JA, Liu J, Wu HJ, Xu Y, Luo D, Zhou BR. . Photodynamic therapy inhibits Fibroblast Growth Factor-10 induced keratinocyte differentiation and proliferation through ROS in Fibroblast Growth Factor Receptor-2b pathway. *SCI REP-UK.* 2016 Jun 7;6:27402.
83. Rao LJ, Yi BC, Li QM, Xu Q. . TET1 knockdown inhibits the odontogenic differentiation potential of human dental pulp cells. *Int J Oral Sci.* 2016 Jun 30;8(2):110-6.
84. Tang W, Cai P, Huo W, Li H, Tang J, Zhu D, Xie H, Chen P, Hang B, Wang S, Xia Y. . Suppressive action of miRNAs to ARP2/3 complex reduces cell migration and proliferation via RACisoforms in Hirschsprung disease. *J Cell Mol Med.* 2016 Jul;20(7):1266-75.
85. Li J, Yu H, Xi M, Lu X. . Long noncoding RNA C17orf91 is a potential prognostic marker and functions as an oncogene in ovarian cancer. *J Ovarian Res.* 2016 Aug 17;9(1):49.
86. Gao J, Zhou C, Li Y, Gao F, Wu H, Yang L, Qiu W, Zhu L, Du X, Lin W, Huang D, Liu H, Liang C, Luo S. . Asperosaponin VI promotes progesterone receptor expression in decidual cells via the notch signaling pathway. *Fitoterapia.* 2016 Sep;113:58-63.
87. Liu Q, Xu C, Ji G, Liu H, Mo Y, Tollerud DJ, Gu A, Zhang Q. . Sublethal effects of zinc oxide nanoparticles on male reproductive cells. *Toxicol In Vitro.* 2016 Sep;35:131-8.
88. Wang L, Li J, Zhao X, Qian C, Wei G, Zhu B, Liu C. . Expression and characterization of a lipase-related protein in the malpighian tubules of the Chinese oak silkworm, *Antheraea pernyi.* *B ENTOMOL RES.* 2016 Oct;106(5):615-23.
89. Yu N, Zhu H, Tao Y, Huang Y, Song X, Zhou Y, Li Y, Pei Q, Tan Q, Pei H. . Association between prognostic survival of human colorectal carcinoma and ZNRF3 expression. *ONCOTARGETS THER.* 2016 Oct 28;9:6679-87.
90. Du C, Xie H, Zang R, Shen Z, Li H, Chen P, Xu X, Xia Y, Tang W. . Apoptotic neuron-secreted HN12 inhibits cell apoptosis in Hirschsprung's disease. *INT J NANOMED.* 2016 Nov 7;11:5871-81.
91. Dai M, Feng M, Liao M, Cao W. . Inhibition of ERK/MAPK suppresses avian leukosis virus subgroup A and B replication. *MICROB PATHOGENESIS.* 2017 Jan;102:29-35.
92. Zhao P, Guo Y, Zhang W, Chai H, Xing H, Xing M. . Neurotoxicity induced by arsenic in Gallus Gallus: Regulation of oxidative stress and heat shock protein response. *Chemosphere.* 2017 Jan;166:238-245.
93. Ma C, Wei Q, Cao B, Cheng X, Tian J, Pu H, Yusufi A, Cao L. . A multifunctional bioactive material that stimulates osteogenesis and promotes the vascularization bone marrow stem cells and their resistance to bacterial infection. *PLoS One.* 2017 Mar 30;12(3):e0172499.
94. Huang Z, Hu Z, Xie P, Liu Q. . Tyrosine-mutated AAV2-mediated shRNA silencing of PTEN promotes axon regeneration of adult optic nerve. *PLoS One.* 2017 Mar 21;12(3):e0174096.
95. Duan YF, Sun DL, Chen J, Zhu F, An Y. . MicroRNA-29a/b/c targets iNOS and is involved in protective remote ischemic preconditioning in an ischemia-reperfusion rat model of non-alcoholic fatty liver disease. *Oncol Lett.* 2017 Mar;13(3):1775-1782.
96. Zeng YL, Zheng H, Chen QR, Yuan XH, Ren JH, Luo XF, Chen P, Lin ZY, Chen SZ, Wu XQ, Xiao M, Chen YQ, Chen ZZ, Hu JD, Yang T. . Bone marrow-derived mesenchymal stem cells overexpressing MiR-21 efficiently repair myocardial damage in rats. *ONCOTARGET.* 2017 Apr 25;8(17):29161-29173.
97. Shao BZ, Ke P, Xu ZQ, Wei W, Cheng MH, Han BZ, Chen XW, Su DF, Liu C. . Autophagy Plays an Important Role in Anti-inflammatory Mechanisms Stimulated by Alpha7Nicotinic Acetylcholine Receptor. *Front Immunol.* 2017 May 16;8:553.
98. Sun X, He Y, Guo Y, Li S, Zhao H, Wang Y, Zhang J, Xing M. . Arsenic affects inflammatory cytokine expression in Gallus gallus brain tissues. *BMC Vet Res.* 2017 Jun 5;13(1):157.
99. Ling Y, Li X, Yu L, Liang Q, Lin X, Yang X, Wang H, Zhang Y. . Sevoflurane exposure in postnatal rats induced long-term cognitive impairment through upregulating caspase-3/cleaved-poly (ADP-ribose) polymerase pathway. *Exp Ther Med.* 2017 Oct;14(4):3824-3830.
100. Lee SE, Lee EY, Kang SJ, Lee SH. . 11 $\beta$ -Hydroxysteroid Dehydrogenase Type 1 Inhibition Attenuates the Adverse Effects of Glucocorticoids on Dermal Papilla Cells. *Yonsei Med J.* 2017 Nov;58(6):1204-1210.
101. Tan F, Dong W, Lei X, Liu X, Li Q, Kang L, Zhao S, Zhang C. . Attenuated SUMOylation of sirtuin 1 in premature neonates with bronchopulmonary dysplasia. *Mol Med Rep.* 2018 Jan;17(1):1283-1288.
102. Zhu S, Tang S, Su F. . Dioscin inhibits ischemic stroke-induced inflammation through inhibition of the TLR4/MyD88/NF- $\kappa$ B signaling pathway in a rat model. *Mol Med Rep.* 2018 Jan;17(1):660-666.
103. Deng X, Huang W, Peng J, Zhu TT, Sun XL, Zhou XY, Yang H, Xiong JF, He HQ, Xu YH, He YZ. . Irisin Alleviates Advanced Glycation End Products-Induced Inflammation and Endothelial Dysfunction via Inhibiting ROS-NLRP3 Inflammasome Signaling. *Inflammation.* 2018 Feb;41(1):260-275.

104. Li H, Xiu M, Wang S, Brigstock DR, Sun L, Qu L, Gao R . Role of Gut-Derived Endotoxin on Type I Collagen Production in the Rat Pancreas After ChronicAlcohol Exposure. *Alcohol Clin Exp Res.* 2018 Feb;42(2):306-314.
105. Chen Q, Li Y, Zhou X, Li R . Oxbendazole inhibits prostate cancer cell growth. *Oncol Lett.* 2018 Feb;15(2):2218-2226.
106. Xiong D, Zhu SQ, Wu YB, Jin C, Jiang JH, Liao YF, Long X, Wu HB, Xu JJ, Li JJ, Ding JY . Ring finger protein 38 promote non-small cell lung cancer progression by endowing cell EMT phenotype. *J Cancer.* 2018 Feb 12;9(5):841-850.
107. Lei W, Zeng D, Liu G, Zhu Y, Wang J, Wu H, Jiang J, Huang J . Crucial role of OX40/OX40L signaling in a murine model of asthma. *Mol Med Rep.* 2018 Mar;17(3):4213-4220.
108. Yu Y, Yin G, Bao S, Guo Z . Kinetic alterations of collagen and elastic fibres and their association with cardiac function in acute myocardial infarction. *Mol Med Rep.* 2018 Mar;17(3):3519-3526.
109. Wan RJ, Li YH . MicroRNA-146a/NAPDH oxidase4 decreases reactive oxygen species generation and inflammation in a diabetic nephropathy model. *Mol Med Rep.* 2018 Mar;17(3):4759-4766.
110. Xu T, Du XW, Hu JB, Zhu YF, Wu HL, Dai GP, Shu YM, Ouyang J . Anticancer effect of miR-96 inhibitor in bladder cancer cell lines. *Oncol Lett.* 2018 Mar;15(3):3814-3819.
111. Jiang XX, Liu GY, Lei H, Li ZL, Feng QP, Huang W . Activation of transient receptor potential vanilloid 1 protects the heart against apoptosis in ischemia/reperfusion injury through upregulating the PI3K/Akt signaling pathway. *Int J Mol Med.* 2018 Mar;41(3):1724-1730.
112. Wang S, Jiang T, Fan Y, Zhao S . A proteomic approach reveals the variation in human platelet protein composition after storage at different temperatures. *Platelets.* 2018 Mar 29:1-10.
113. Sun L, Xiu M, Wang S, Brigstock DR, Li H, Qu L, Gao R . Lipopolysaccharide enhances TGF- $\beta$ 1 signalling pathway and rat pancreatic fibrosis. *J Cell Mol Med.* 2018 Apr;22(4):2346-2356.
114. Chen Y, Song W . Wnt/catenin  $\beta$ 1/microRNA 183 predicts recurrence and prognosis of patients with colorectal cancer. *Oncol Lett.* 2018 Apr;15(4):4451-4456.
115. Liu Q, Wu C, Huang S, Wu Q, Zhou T, Liu X, Liu X, Hu X, Li L . Decreased hyperpolarization-activated cyclic nucleotide-gated channels are involved in bladder dysfunction associated with spinal cord injury. *Int J Mol Med.* 2018 May;41(5):2609-2618.
116. Yuan J, Zhu M, Deng S, Fan S, Xu H, Liao J, Li P, Zheng J, Zhao M, Chen J . Classical swine fever virus induces pyroptosis in the peripheral lymphoid organs of infected pigs. *Virus Res.* 2018 May 2;250:37-42.
117. Liu Q, Sun B, Zhao J, Wang Q, An F, Hu X, Yang Z, Xu J, Tan M, Li L . Increased Piezol channel activity in interstitial Cajal-like cells induces bladder hyperactivity by functionally interacting with NCX1 in rats with cyclophosphamide-induced cystitis. *Exp Mol Med.* 2018 May 7;50(5):60.
118. Lu Z, Sun J, Xin Y, Chen K, Ding W, Wang Y . Sevoflurane-induced memory impairment in the postnatal developing mouse brain. *Exp Ther Med.* 2018 May 15(5):4097-4104.
119. Xu H, Zhang P, Li R, Wu W, Wang S, Xu Y . Expression analysis of multifunctional RNA-binding protein hnRNP K during development of mammalian testis. *Pol J Vet Sci.* 2018 Jun;21(2):343-351.
120. Zhao J, Shi L, Zeng S, Ma C, Xu W, Zhang Z, Liu Q, Zhang P, Sun Y, Xu C . Importin-11 overexpression promotes the migration, invasion, and progression of bladder cancer associated with the deregulation of CDKN1A and THBS1. *UROL ONCOL-SEMIN ORI.* 2018 Jun;36(6):311.e1-311.e13.
121. Sun L, Yao Y, Pan G, Zhan S, Shi W, Lu T, Yuan J, Tian K, Jiang L, Song S, Zhu X, He S . Small interfering RNA-mediated knockdown of fatty acid synthase attenuates the proliferation and metastasis of human gastric cancer cells via the mTOR/Gli1 signaling pathway. *Oncol Lett.* 2018 Jul;16(1):594-602.
122. Chen Y, Sun Z, Xu J, Wang P, Tang J, Shi X, Liu J, Ren F, Xu L . Vitamin D and DDX4 regulate the proliferation and invasion of ovarian cancer cells. *Oncol Lett.* 2018 Jul;16(1):905-909.
123. Yin J, Li X, Zhang Z, Luo X, Wang L, Liu L . SPAG6 silencing induces apoptosis in the myelodysplastic syndrome cell line SKM-1 via the PTEN/PI3K/AKT signaling pathway in vitro and in vivo. *Int J Oncol.* 2018 Jul;53(1):297-306.
124. Bi C, Jiang B . Downregulation of RPN2 induces apoptosis and inhibits migration and invasion in colon carcinoma. *Oncol Rep.* 2018 Jul;40(1):283-293.
125. Wang Y, Zhang S . Berberine suppresses growth and metastasis of endometrial cancer cells via miR-101/COX-2. *Biomed Pharmacother.* 2018 Jul;103:1287-1293.
126. Fan S, Yuan J, Deng S, Chen Y, Xie B, Wu K, Zhu M, Xu H, Huang Y, Yang J, Zhang Y, Chen J, Zhao M . Activation of Interleukin-1 $\beta$  Release by the Classical Swine Fever Virus Is Dependent on the NLRP3 Inflammasome, Which Affects Virus Growth in Monocytes. *FRONT CELL INFECT MI.* 2018 Jul 2;8:225.
127. Chandra Roy A, Wang Y, Zhang H, Roy S, Dai H, Chang G, Shen X . Sodium Butyrate Mitigates iE-DAP Induced Inflammation Caused by High-Concentrate Feeding in Liver of Dairy Goats. *J AGR FOOD CHEM.* 2018 Aug 29;66(34):8999-9009.
128. Lu T, Sun L, Zhu X . Yes-associated protein enhances proliferation and attenuates sensitivity to cisplatin in human gastric cancer cells. *Biomed Pharmacother.* 2018 Sep;105:1269-1275.
129. Wang Y, Hou Z, Li D . Long noncoding RNA UCA1 promotes anaplastic thyroid cancer cell proliferation via miR-135a-mediated c-myc activation. *Mol Med Rep.* 2018 Sep;18(3):3068-3076.
130. Guo ZY, Zhang B, Yan YH, Gao SS, Liu JJ, Xu L, Hui PJ . Specific matrix metalloproteinases and calcification factors are associated with the vulnerability of human carotid plaque. *Exp Ther Med.* 2018 Sep;16(3):2071-2079.
131. Wu Z, Sun L, Liu G, Liu H, Liu H, Yu Z, Xu S, Li F, Qin Y . Hair follicle development and related gene and protein expression of skins in Rex rabbits during the first 8 weeks of life. *ASIAN AUSTRAL J ANIM.* 2018 Sep 13.
132. Xiong D, Jin C, Ye X, Qiu B, Jianjun X, Zhu S, Xiang L, Wu H, Yongbing W . TRIM44 promotes human esophageal cancer progression via the AKT/mTOR pathway. *Cancer Sci.* 2018 Oct;109(10):3080-3092.
133. Wu X, Du J, Song W, Cao M, Chen S, Xia R . Weak power frequency magnetic fields induce microtubule cytoskeleton reorganization depending on the epidermal growth factor receptor and the calcium related signaling. *PLoS One.* 2018 Oct 12;13(10):e0205569.
134. Wang H, Long X, Wang D, Lou M, Zou D, Chen R, Nian W, Zhou Q . Increased expression of Na $^{+}$ /H $^{+}$  exchanger isoform 1 predicts tumor aggressiveness and unfavorable prognosis in epithelial ovarian cancer. *Oncol Lett.* 2018 Nov;16(5):6713-6720.
135. Wang J, Yang X, Li R, Wang L, Gu Y, Zhao Y, Huang KH, Cheng T, Yuan Y, Gao S . Long non-coding RNA MYU promotes prostate cancer proliferation by mediating the miR-184/c-Myc axis. *Oncol Rep.* 2018 Nov;40(5):2814-2825.
136. Zhang Y, Xue X, Zhao X, Qin L, Shen Y, Dou H, Sun J, Wang T, Yang DQ . Vasohibin 2 promotes malignant behaviors of pancreatic cancer cells by inducing epithelial-mesenchymal transition via Hedgehog signaling pathway. *CANCER MED-US.* 2018 Nov;7(11):5567-5576.
137. Jiao L, Jiang M, Liu J, Wei L, Wu M . Nuclear factor-kappa B activation inhibits proliferation and promotes apoptosis of vascular smooth muscle cells. *Vascular.* 2018 Dec 26(6):634-640.
138. Wang L, Shi H, Zhang X, Zhang X, Liu Y, Kang W, Shi X, Wang T . I157172, a novel inhibitor of cystathione  $\gamma$ -lyase, inhibits growth and migration of breast cancer cells via SIRT1-mediated deacetylation of STAT3. *Oncol Rep.* 2019 Jan 41(1):427-436.
139. Tang CX, Luan L, Zhang L, Wang Y, Liu XF, Wang J, Xiong Y, Wang D, Huang LY, Gao DS . Golgin-160 and GMAP210 play an important role in U251 cells migration and invasion initiated by GDNF. *PLoS One.* 2019 Jan 29 14(1):e0211501.
140. Liu Y, Wang H, Wang J, Wei B, Zhang X, Zhang M, Cao D, Dai J, Wang Z, Nyirimigabo E, Ji G . A positive feedback regulation of Heme oxygenase 1 by CELF1 in cardiac myoblast cells. *BBA-GENE REGUL MECH.* 2019 Feb;1862(2):209-218.
141. Song S, Liu L, Yu Y, Zhang R, Li Y, Cao W, Xiao Y, Fang G, Li Z, Wang X, Wang Q, Zhao X, Chen L, Wang Y, Wang Q . Inhibition of BRD4 attenuates transverse aortic

- constriction- and TGF- $\beta$ -induced endothelial-mesenchymal transition and cardiac fibrosis. *J Mol Cell Cardiol.* 2019 Feb 127:83-96.
142. Sun L, Lu T, Tian K, Zhou D, Yuan J, Wang X, Zhu Z, Wan D, Yao Y, Zhu X, He S . Alpha-enolase promotes gastric cancer cell proliferation and metastasis via regulating AKT signaling pathway. *Eur J Pharmacol.* 2019 Feb 15 845:8-15.
143. Cao Y, Liu H, Xia SL, Zhang X, Bai H, Yang Q, Li J, Gao L, Jin F, Wei MJ, Lu SL, Xiao J . PTEN downregulates WD repeat-containing protein 66 in salivary adenoid cystic carcinoma. *Oncol Rep.* 2019 Mar 41(3):1827-1836.
144. Li Y, Chu J, Feng W, Yang M, Zhang Y, Zhang Y, Qin Y, Xu J, Li J, Vasilatos SN, Fu Z, Huang Y, Yin Y . EPHA5 mediates trastuzumab resistance in HER2-positive breast cancers through regulating cancer stem cell-like properties. *FASEB J.* 2019 Apr 33(4):4851-4865.
145. Zhou L, Sun S, Xu L, Yu Y, Zhang T, Wang M . DExH-Box helicase 58 enhances osteoblast differentiation of osteoblastic cells via Wnt/ $\beta$ -Catenin signaling. *BIOCHEM BIOPH RES CO.* 2019 Apr 2 511(2):307-311.
146. Li TZ, Deng H, Liu Q, Xia YZ, Darwazeh R, Yan Y . Protease-activated receptor-2 regulates glial scar formation via JNK signaling. *Physiol Res.* 2019 Apr 30 68(2):305-316. Epub 2019 Jan 10.
147. Lu T, Sun L, Wang Z, Zhang Y, He Z, Xu C . Fatty acid synthase enhances colorectal cancer cell proliferation and metastasis via regulating AMPK/mTOR pathway. *ONCOTARGETS THER.* 2019 May 2 12:3339-3347.
148. Zhang F, Zhu F, Yang J, Zhang W, Liu K, Ren L, Xiong F, Lu K, Li D, Zeng R, Wang X, Li J, Chen S, Wang Y, Chen J, Huang N . High-mobility group protein N2 induces autophagy by activating AMPK/ULK1 pathway and thereby boosts UPEC proliferation within bladder epithelial cells. *BIOCHEM BIOPH RES CO.* 2019 May 21 513(1):193-200.
149. Cheng W, Zheng T, Wang Y, Cai K, Wu W, Zhao T, Xu R . Activation of Notch1 signaling by HTLV-1 Tax promotes proliferation of adult T-cell leukemia cells. *BIOCHEM BIOPH RES CO.* 2019 May 7 512(3):598-603.
150. Li Y, Huang C, Bai Q, Yu J . Ribophorin II promotes cell proliferation, migration, and invasion in esophageal cancer cells in vitro and in vivo. *BIOSCIENCE REP.* 2019 May 7 39(5). pii: BSR20182448.
151. Chen C, Wang Y, Zhong K, Jiang C, Wang L, Yuan Z, Nie C, Xu J, Guo G, Zhou L, Yang M, Tong A . Frequent B7-H3 overexpression in craniopharyngioma. *BIOCHEM BIOPH RES CO.* 2019 Jun 25 514(2):379-385.
152. Xin H, Wang Z, Wu S, Wang P, Tao X, Xu C, You L . Calcified decellularized arterial scaffolds impact vascular smooth muscle cell transformation via downregulating  $\alpha$ -SMA expression and upregulating OPN expression. *Exp Ther Med.* 2019 Jul 18(1):705-710.
153. Wu X, Wu Q, Zhou X, Huang J . SphK1 functions downstream of IGF-1 to modulate IGF-1-induced EMT, migration and paclitaxel resistance of A549 cells: A preliminary in vitro study. *J Cancer.* 2019 Jul 10 10(18):4264-4269.
154. Yang G, Zhang T, Ye J, Yang J, Chen C, Cai S, Ma J . Circ-ITGA7 sponges miR-3187-3p to upregulate ASXL1, suppressing colorectal cancer proliferation. *Cancer Manag Res.* 2019 Jul 12 11:6499-6509.
155. Kong X, Dong X, Yang S, Qian J, Yang J, Jiang Q, Li X, Wang B, Yan D, Lu S, Zhu L, Li G, Li M, Yi S, Deng M, Sun L, Zhou X, Mao H, Gou X . Natural selection on TMPRSS6 associated with the blunted erythropoiesis and improved blood viscosity in Tibetan pigs. *COMP BIOCHEM PHYS B.* 2019 Jul 233:11-22.
156. Wang J, Quan X, Peng D, Hu G . Long non-coding RNA DLEU1 promotes cell proliferation of glioblastoma multiforme. *Mol Med Rep.* 2019 Aug 20(2):1873-1882.
157. Li P, Liu Y, Liu W, Li G, Tang Q, Zhang Q, Leng F, Sheng F, Hu C, Lai W, Liu Y, Zhou M, Huang J, Zhou H, Zhang R, Zhao Y . IR-783 inhibits breast cancer cell proliferation and migration by inducing mitochondrial fission. *Int J Oncol.* 2019 Aug 55(2):415-424.
158. Wang L, Shi H, Liu Y, Zhang W, Duan X, Li M, Shi X, Wang T . Cystathione- $\gamma$ -lyase promotes the metastasis of breast cancer via the VEGF signaling pathway. *Int J Oncol.* 2019 Aug 55(2):473-487.
159. Chang G, Ma N, Zhang H, Wang Y, Huang J, Liu J, Dai H, Shen X . Sodium Butyrate Modulates Mucosal Inflammation Injury Mediated by GPR41/43 in the Cecum of Goats Fed a High Concentration Diet. *Front Physiol.* 2019 Aug 30 10:1130.
160. Zhou C, Li C, Wang Q, Wu M, Mohan C, Hu D, Peng A . Histopathological and proteomic analyses identify integrin- $\beta$ 1 as a potential mediator of phlebosclerosis in uremic patients. *Clin Exp Nephrol.* 2019 Sep 23(9):1100-1108.
161. Liu X, Yang Z, Luo X, Luo J, Fu W, Fang Z, Xia D, Li L, Xu J . Calcium-activated nucleotidase 1 silencing inhibits proliferation, migration, and invasion in human clear cell renal cell carcinoma. *J Cell Physiol.* 2019 Dec 234(12):22635-22647.
162. Li C, Huang S, Guo J, Wang C, Huang Z, Huang R, Liu L, Liang S, Wang H . Metabolic Evaluation of MYCN-Amplified Neuroblastoma by 4-[18F]FGln PET Imaging. *Mol Imaging Biol.* 2019 Dec 21(6):1117-1126.
163. Ouyang X, Hao X, Liu S, Hu J, Hu L . Expression of Nup93 is associated with the proliferation, migration and invasion capacity of cervical cancer cells. *ACTA BIOCH BIOPH SIN.* 2019 Dec 13 51(12):1276-1285.
164. Yu D, Hu J, Sheng Z, Fu G, Wang Y, Chen Y, Pan Z, Zhang X, Wu Y, Sun H, Dai J, Lu L, Ouyang H . Dual roles of misshapen/NIK-related kinase (MINK1) in osteoarthritis subtypes through the activation of TGF $\beta$  signaling. *OSTEOARTHR CARTILAGE.* 2020 Jan 28(1):112-121.
165. Wang P, Qin W, Liu T, Jiang D, Cui L, Liu X, Fang Y, Tang X, Jin H, Qian Q . PiggyBac-engineered T cells expressing a glycan-3-specific chimeric antigen receptor show potent activities against hepatocellular carcinoma. *Immunobiology.* 2020 Jan 225(1):151850.
166. Shuangqi Fan, Keke Wu, Chaowei Luo, Xin Li, Mengpo Zhao, Dan Song, Shengming Ma, Erpeng Zhu, Yuming Chen, Hongxing Ding, Lin Yi, Jun Li, Mingqiu Zhao, Jinding Chen . Dual NDP52 Function in Persistent CSFV Infection Front Microbiol. 2020 Jan 8;10:2962.
167. Pei Wang, Wenxia Qin, Tao Liu, Duqing Jiang, Lianzhen Cui, Xiangzhen Liu, Yuan Fang, Xi Tang, Huajun Jin, Qijun Qian . PiggyBac-engineered T cells expressing a glycan-3-specific chimeric antigen receptor show potent activities against hepatocellular carcinoma Immunobiology. 2020 Jan;225(1):151850.
168. D Yu, J Hu, Z Sheng, G Fu, Y Wang, Y Chen, Z Pan, X Zhang, Y Wu, H Sun, J Dai, L Lu, H Ouyang . Dual roles of misshapen/NIK-related kinase (MINK1) in osteoarthritis subtypes through the activation of TGF $\beta$  signaling OSTEOARTHR CARTILAGE. 2020 Jan;28(1):112-121.
169. Fan HY, Wang XK, Li X, Ji K, Du SH, Liu Y, Kong LL, Xu JC, Yang GQ, Chen DQ, Qi D . Curcumin, as a pleiotropic agent, improves doxorubicin-induced nephrotic syndrome in rats. *J Ethnopharmacol.* 2020 Mar 25 250:112502.
170. Ye C, Zhang X, Chen X, Cao Q, Zhang X, Zhou Y, Li W, Hong L, Xie H, Liu X, Cao H, Wang YJ, Kang B . Multiple novel hepatocellular carcinoma signature genes are commonly controlled by the master pluripotency factor OCT4. *CELL ONCOL.* 2020 Apr 43(2):279-295.
171. Xu Bai, Yu Wang, Bo Hu, Qi Cao, Maochen Xing, Shuliang Song, Aiguo Ji . Fucoidan Induces Apoptosis of HT-29 Cells via the Activation of DR4 and Mitochondrial Pathway Mar Drugs. 2020 Apr 20;18(4):220.
172. Jiang Liu, Shuai Song, Ya Ping Zhang, Di Wang, Zhong'e Zhou, Yu Chen, Xian Jin, Cui Fen Hu, Cheng Xing Shen . Amphiregulin promotes cardiac fibrosis post myocardial infarction by inducing the endothelial-mesenchymal transition via the EGFR pathway in endothelial cells Exp Cell Res. 2020 May 15;390(2):111950.
173. Haibin Mu, Peiqiang Mu, Wenyia Zhu, Boyan Huang, Hui Li, Liping Yuan, Yiqun Deng . Low doses of deoxynivalenol inhibit the cell migration mediated by H3K27me3-targeted downregulation of TEM8 expression Biochem Pharmacol. 2020 May;175:113897.
174. Xiaotian Du, Yishan Chen, Qin Zhang, Junxin Lin, Yeke Yu, Zongyou Pan, Heng Sun, Chunhui Yuan, Dongsheng Yu, Haoyu Wu, Xiaoan Zhang, Jun Dai, Shouan Zhu, Yiting Zhou, Hongwei Ouyang . Ezh2 Ameliorates Osteoarthritis by Activating TNFSF13B J Bone Miner Res. 2020 May;35(5):956-965.
175. Enqin Liu, Xinghui Wang, Xidong Li, Ping Tian, Hao Xu, Zenglian Li, Likun Wang . Co-exposure to multi-walled carbon nanotube and lead ions aggravates hepatotoxicity of nonalcoholic fatty liver via inhibiting AMPK/PPAR $\gamma$  pathway AGING-US. 2020 Jul 17;12(14):14189-14204.
176. Xiyi Hu, Yuanli Cai, Linglian Kong, Hai Lin, Zhigang Song, Johan Buyse . Effects

- of dietary corticosterone on the central adenosine monophosphate-activated protein kinase (AMPK) signaling pathway in broiler chickens J Anim Sci. 2020 Jul 1;98(7):skaa202.
177. Mimi Mu, Peiyu Gao, Qian Yang, Jing He, Fengjiao Wu, Xue Han, Shujun Guo, Zhongqing Qian, Chuanwang Song . Alveolar Epithelial Cells Promote IGF-1 Production by Alveolar Macrophages Through TGF- $\beta$  to Suppress Endogenous Inflammatory Signals Front Immunol. 2020 Jul 21;11:1585.
178. Xiaoting Chen, Yan Hu, Tianyuan Jiang, Chao Xia, Yan Wang, Yanhong Gao . Triiodothyronine Potentiates BMP9-Induced Osteogenesis in Mesenchymal Stem Cells Through the Activation of AMPK/p38 Signaling Front Cell Dev Biol. 2020 Jul 31;8:725.
179. Meng Zhang, Jie Luo, Xiaohua Luo, Lin Liu . SPAG6 silencing induces autophagic cell death in SKM-1 cells via the AMPK/mTOR/ULK1 signaling pathway Oncol Lett. 2020 Jul;20(1):551-560.
180. Yang Yang, Xiyun Chen, Huijuan Wu, Hua Peng, Wenjing Sun, Bin He, Zhengang Yuan . A novel heterozygous mutation in the HMBS gene in a patient with acute intermittent porphyria and posterior reversible encephalopathy syndrome Mol Med Rep. 2020 Jul;22(1):516-524.
181. You Zhou, Hui You, Aijie Zhang, Xingliang Jiang, Zheyen Pu, Guoqiang Xu, Mingcai Zhao . Lipoxin A4 attenuates uric acid-activated, NADPH oxidase-dependent oxidative stress by interfering with translocation of p47phox in human umbilical vein endothelial cells Exp Ther Med. 2020 Aug;20(2):1682-1692.
182. Ruqiu Fu, Lin Zhang, Yuanyuan Li, Bin Li, Yue Ming, Zhiwei Li, Haiyan Xing, Jianhong Chen. Saikosaponin D inhibits autophagosome-lysosome fusion and induces autophagy-independent apoptosis in MDA-MB-231 breast cancer cells Mol Med Rep. 2020 Aug;22(2):1026-1034.
183. Ying Feng, Fuliang Zhan, Yanying Zhong, Buzhen Tan . Effects of human umbilical cord mesenchymal stem cells derived from exosomes on migration ability of endometrial glandular epithelial cells Mol Med Rep. 2020 Aug;22(2):715-722.
184. Yanfei Du, Haiying Xiao, Jun Wan, Xinyu Wang, Tao Li, Shuzhan Zheng, Jian Feng, Qiang Ye, Jiafu Li, Guang Li, Zhongcai Fan . Atorvastatin attenuates TGF- $\beta$ 1-induced fibrogenesis by inhibiting Smad3 and MAPK signaling in human ventricular fibroblasts Int J Mol Med. 2020 Aug;46(2):633-640.
185. Wenhui Li, Zilin Zhang, Liangliang Zhang, Hong Li, Shuangqi Fan, Erpeng Zhu, Jindai Fan, Zhaoyao Li, Wenxian Chen, Lin Yi, Hongxing Ding, Jinding Chen, Mingqiu Zhao . Antiviral Role of Serine Incorporator 5 (SERINC5) Proteins in Classical Swine Fever Virus Infection Front Microbiol. 2020 Sep 4;11:580233.
186. Hua-Dong Chen, Ne Guo, Shan-Shan Song, Chuan-Huizi Chen, Ze-Hong Miao, Jin-Xue He . Novel mutations in BRCA2 intron 11 and overexpression of COX-2 and BIRC3 mediate cellular resistance to PARP inhibitors Am J Cancer Res. 2020 Sep 1;10(9):2813-2831.
187. Ting Han, Zhengwu Cheng, Menglin Xu, Xiaoming Wang, Jian Wu, Xiaosan Fang . Yes-Associated Protein Contributes to Cell Proliferation and Migration of Gastric Cancer via Activation of Gli1 ONCOTARGETS THER. 2020 Oct 27;13:10867-10876.
188. Qianqian Cheng, Xiaodi Feng, Qi Meng, Yaqi Li, Siqi Chen, Guoen Wang, Ke Nie . [6]-Gingerol Ameliorates Cisplatin-Induced Pica by Regulating the TPH/MAO-A/SERT/5-HT/5-HT 3 Receptor System in Rats DRUG DES DEV THER. 2020 Oct 2;14:4085-4099.
189. Menglin Xu, Junfeng Wang, Haoran Li, Zhengrong Zhang, Zhengwu Cheng . AIM2 inhibits colorectal cancer cell proliferation and migration through suppression of Gli1 Aging (Albany NY). 2020 Dec 3;13(1):1017-1031.
190. Yang Yang, Ying Li, Jie Wang, Lei Hong, Shigang Qiao, Chen Wang, Jianzhong An . Cholinergic receptors play a role in the cardioprotective effects of anesthetic preconditioning: Roles of nitric oxide and the CaMKK $\beta$ /AMPK pathway Exp Ther Med. 2021 Feb;21(2):137.
191. Daomei Chen, Bin Li, Tao Lei, Di Na, Minfang Nie, Yepeng Yang, Congjia, Xie, Zijuan He, Jiaqiang Wang . Selective mediation of ovarian cancer SKOV3 cells death by pristine carbon quantum dots/Cu2O composite through targeting matrix metalloproteinases, angiogenic cytokines and cytoskeleton J Nanobiotechnology. 2021 Mar 4;19(1):68.
192. Dong Wang, Junwei Zou, Jun Dai, Zhengwu Cheng . Absent in melanoma 2 suppresses gastric cancer cell proliferation and migration via inactivation of AKT signaling pathway Sci Rep. 2021 Apr 15;11(1):8235.
193. Conghui Wang, Meng Gao, Shuqi Liu, Zongji Zou, Ruiyin Ren, Chen Zhang, Hao Xie, Jingxian Sun, Yupeng Qi, Qi Qu, Zhihua Song, Gangqiang Yang, Hongbo Wang . Pyxinol bearing amino acid residues: Easily achievable and promising modulators of P-glycoprotein-mediated multidrug resistance Eur J Med Chem. 2021 Apr 15;216:113317.
194. Ya Liu, Lupeng Wang, Xiuli Zhang, Yuying Deng, Limin Pan, Hui Li, Xiaoyan Shi, Tianxiao Wang . A novel cystathione  $\gamma$ -lyase inhibitor, II194496, inhibits the growth and metastasis of human TNBC via downregulating multiple signaling pathways Sci Rep. 2021 Apr 26;11(1):8963.
195. Linhua Jiang, Jiawen Zhang, Qixuan Xu, Bin Wang, Yizhou Yao, Liang Sun, Xuchao Wang, Diyuan Zhou, Ling Gao, Shiduo Song, Xinguo Zhu . YAP promotes the proliferation and migration of colorectal cancer cells through the Glut3/AMPK signaling pathway Oncol Lett. 2021 Apr;21(4):312.
196. Zhengwei Cai, Qimanguli Saiding, Liang Cheng, Liucheng Zhang, Zhen Wang, Fei Wang, Xinliang Chen, Gang Chen, Lianfu Deng, Wenguo Cui . Capturing dynamic biological signals via bio-mimicking hydrogel for precise remodeling of soft tissue Bioact Mater. 2021 May 11;6(12):4506-4516.
197. Weiyun Wu, Yongze Chen, Shicai Ye, Hui Yang, Jianyun Yang, Juanhua Quan . Transcription factor forkhead box K1 regulates miR-32 expression and enhances cell proliferation in colorectal cancer Oncol Lett. 2021 May;21(5):407.
198. Sanjun Jin, Hao Yang, Yihan Jiao, Qian Pang, Yingjie Wang, Min Wang, Anshan Shan, Xingjun Feng . Dietary Curcumin Alleviated Acute Ileum Damage of Ducks (*Anas platyrhynchos*) Induced by AFB1 through Regulating Nrf2-ARE and NF- $\kappa$ B Signaling Pathways Foods. 2021 Jun 14;10(6):1370.
199. Feng Wang, Mingyuan Hu, Hangju Zhu, Chao Yang, Hui Xia, Xian Yang, Ligang Yang, Guiju Sun . MyD88 determines the protective effects of fish oil and perilla oil against metabolic disorders and inflammation in adipose tissue from mice fed a high-fat diet Nutr Diabetes. 2021 Jun 17;11(1):23.
200. Hongchao Gou, Zhibiao Bian, Ruijian Cai, Pinpin Chu, Shuai Song, Yan Li, Zhiyong Jiang, Kunli Zhang, Dongxia Yang, Chunling Li . RIPK3-Dependent Necroptosis Limits PRV Replication in PK-15 Cells Front Microbiol. 2021 Jun 4;12:664353.
201. Wei Cao, Shuai Song, Guojian Fang, Yingze Li, Yuepeng Wang, Qun-Shan Wang . Cadherin-11 Deficiency Attenuates Ang-II-Induced Atrial Fibrosis and Susceptibility to Atrial Fibrillation J Inflamm Res. 2021 Jul 2;14:2897-2911.
202. Pengjing Lian, Yu Bai, Jingyun Li, Hongyan Wang, Xiaofei Niu, Zihui Zhang, Hongru Li, Lihong Zhao, Jian Qiao . Vitamin D receptor and 1 $\alpha$ -hydroxylase are highly expressed in lungs of mice infected with H9N2 avian influenza viruses J Steroid Biochem Mol Biol. 2021 Jul;211:105907.
203. Ke Li, Tiejun Feng, Leyan Liu, Hongmei Liu, Kaixun Huang, Jun Zhou . Hepatic Proteomic Analysis of Selenoprotein T Knockout Mice by TMT: Implications for the Role of Selenoprotein T in Glucose and Lipid Metabolism Int J Mol Sci. 2021 Aug 7;22(16):8515.
204. Jiali Yuan, Ping Li, Honghong Pan, Qi Xu, Tiantian Xu, Yan Li, Dong Wei, Yiqun Mo, Qunwei Zhang, Jingyu Chen, Chunhui Ni . miR-770-5p inhibits the activation of pulmonary fibroblasts and silica-induced pulmonary fibrosis through targeting TGFBR1 Ecotoxicol Environ Saf. 2021 Sep 1;220:112372.
205. Xierenguli Haliike, Jinyu Li, Pengfei Yuan, Kaimeiliya Yasheng, Min Chen, Lijie Xia, Jinyao Li . The petroleum ether extract of Brassica rapa L. induces apoptosis of lung adenocarcinoma cells via the mitochondria-dependent pathway Food Funct. 2021 Oct 19;12(20):10023-10039.
206. Qi Han, Huiling Chen, Likai Wang, Yang An, Xiaoxiang Hu, Yaofeng Zhao, Hao Zhang, Ran Zhang . Systemic Deficiency of GHR in Pigs leads to Hepatic Steatosis via Negative Regulation of AHR Signaling Int J Biol Sci. 2021 Oct 3;17(15):4108-4121.
207. Weidong Jiang, Peiqi Zhu, Fangfang Huang, Zhenchen Zhao, Tao Zhang, Xiaoning

- An, Fengchun Liao, Lina Guo, Yan Liu, Nuo Zhou, Xuanping Huang . The RNA Methyltransferase METTL3 Promotes Endothelial Progenitor Cell Angiogenesis in Mandibular Distraction Osteogenesis via the PI3K/AKT Pathway Front Cell Dev Biol. 2021 Nov 1;9:720925.
208. Xu Danni, Zeng Jiangzheng, Sun Huamao, Pan Yinglian, Yang Changcheng, Lu Yanda . Chaperonin containing TCP1 subunit 3 (CCT3) promotes cisplatin resistance of lung adenocarcinoma cells through targeting the Janus kinase 2/signal transducers and activators of transcription 3 (JAK2/S Bioengineered. 2021 Dec;12(1):7335-7347.
209. Tao Liu, Xuegang Wang, Feng Guo, Xiaobo Sun, Kunxiong Yuan, Qingyong Wang, Chunwei Lan . Lysophosphatidylcholine induces apoptosis and inflammatory damage in brain microvascular endothelial cells via GPR4-mediated NLRP3 inflammasome activation Toxicol In Vitro. 2021 Dec;77:105227.
210. Xiaotian Du, Qin Zhang, Siyuan Wang, Xiao Chen, Yue Wang . MCAM is associated with metastasis and poor prognosis in osteosarcoma by modulating tumor cell migration J Clin Lab Anal. 2022 Feb;36(2):e24214.
211. Jiali Yuan, Ting Wang, Lijuan Wang, Ping Li, Hongbing Shen, Yiqun Mo, Qunwei Zhang, Chunhui Ni . Transcriptome-wide association study identifies PSMB9 as a susceptibility gene for coal workers' pneumoconiosis Environ Toxicol. 2022 Aug;37(8):2103-2114.
212. Qian Liu, Qu-Dong Lu, Bi-Shao Sun, Jiang Zhao, Fan He, Jing-Zhen Zhu . Inhibition of U-II/UT signaling ameliorates cystitis-associated bladder hyperactivity by targeting the RhoA/Rho-kinase pathway Kaohsiung J Med Sci. 2022 Sep;38(9):879-888.
213. Hao Yang, Yingjie Wang, Sanjun Jin, Qian Pang, Anshan Shan, Xingjun Feng . Dietary resveratrol alleviated lipopolysaccharide-induced ileitis through Nrf2 and NF- $\kappa$ B signalling pathways in ducks (*Anas platyrhynchos*) J Anim Physiol Anim Nutr (Berl). 2022 Nov;106(6):1306-1320.
214. Tian Hou, Miaomiao Du, Xiang Gao, Meiwen An . Human Vascular Endothelial Cells Promote the Secretion of Vascularization Factors and Migration of Human Skin Fibroblasts under Co-Culture and Its Preliminary Application Int J Mol Sci. 2022 Nov 13;23(22):13995.
215. Haojun Xiong, Dandan Zheng, Ying Liu, Lihai Ma, Lingzhan Meng, Zhenzhou Yang, Zhixiang Yang . Activation of the  $\beta$ -TrCP/I $\kappa$ B $\alpha$ /inflammation axis limits the sensitivity of liver cancer cells to neddylation inhibition Oncol Rep. 2022 Nov;48(5):201.
216. Haiyang Ma, Miaomiao Du, Tian Hou, Jiqiang Guo, Yang Liu, Yaru Jia, Li Wang, Meiwen An . HMGB1/RAGE axis accelerates the repair of HUVECs injured by pathological mechanical stretching via promoting bFGF expression Biochem Biophys Res Commun. 2022 Dec 25;636(Pt 1):75-83.
217. Lin Sun, Qian Wu, Xia-Juan Huan, Chang-Qing Tian, Ying-Qing Wang, Ze-Hong Miao . Loss of VOPP1 Contributes to BET Inhibitor Acquired Resistance in Non-Small Cell Lung Cancer Cells Mol Cancer Res. 2022 Dec 2;20(12):1785-1798.

Version 2024.03.12