



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

Actin抗体(小鼠单抗)

产品编号	产品名称	包装
AA128	Actin抗体(小鼠单抗)	>40次

产品简介:

来源	用途	交叉反应性	抗体类型	β-actin分子量
Mouse	WB, IF, IHC	Mam, C, CP, L, F	IgG2a	~42kD

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

Mam, mammalian, including human, mouse, rat, bovine, sheep, pig, rabbit, cat, dog, guinea pig; C, chicken; CP, carp; L, leech; F, fruit fly.

- 本Actin抗体(Actin antibody)为进口分装, 用经过适当修饰的人工合成β-actin N-terminal一段多肽作为抗原制备而成的抗β-actin小鼠单克隆抗体。克隆号为AC-74。本Actin抗体在Western blot或免疫染色时仅识别β-actin。注意: 本抗体不能用于检测成年动物心肌或骨骼肌的β-actin。
- Actin即肌动蛋白, 是细胞的一种重要骨架蛋白。同时Actin在细胞分泌、吞噬、 locomotion、 cytoplasmic streaming和 cytokinesis等过程中起重要作用。Actin在不同物种之间高度保守, 以至于很难获得较好的针对actin的抗血清。Actin大致可分为六种, 其中四种是不同肌肉组织特异性的, 包括α-skeletal muscle actin, α-cardiac muscle actin, α-smooth muscle actin, 和γ-smooth muscle actin; 其余两种广泛分布于各种组织中, 包括β-actin (β-non-muscle)和γ-non-muscle actin。不同的actin之间同源性大于90%, 但在N-terminal同源性仅50%-60%, 因此N-terminal常被用作actin的抗原。
- β-actin的蛋白水平通常不会发生改变, 因此被广泛用于Western时上样量是否一致的参照。也常被用于免疫染色观察细胞的微丝结构。在用作Western的参照时, Actin抗体和Tubulin抗体的主要不同之处在于两者所识别蛋白的分子量不同, 这样可以选择合适的参照在同一块胶同一张膜上实现同时检测目标蛋白和参照蛋白。
- 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
1:1000	1:400	1:400

- 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
AA128-1	Actin抗体(小鼠单抗)	40μl
AA128-2	Western一抗稀释液	40ml
—	说明书	1份

保存条件:

Actin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长菌等情况, 则可以考虑废弃该抗体。
- 本产品仅限于专业人员的科学的研究用, 不得用于临床诊断或治疗, 不得用于食品或药品, 不得存放于普通住宅内。
- 为了您的安全和健康, 请穿实验服并戴一次性手套操作。

使用说明:

1. Western检测:

- a. 按照1: 1000用碧云天提供的Western一抗稀释液稀释抗体。
- b. 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。

- 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. Ahmed MF, El-Sayed AK, Chen H, Zhao R, Jin K, Zuo Q, Zhang Y, Li B. Direct conversion of mouse embryonic fibroblast to osteoblast cells using hLMP-3 with Yamanaka factors. *INT J BIOCHEM CELL B.* 106:84-95.
2. Chen Q, Chen Y, Sun Y, He W, Han X, Lu E, Sha X. Leukocyte-mimicking Pluronic-lipid nanovesicle hybrids inhibit the growth and metastasis of breast cancer. *Nanoscale.* 11(12):5377-5394.
3. Kang X, Cao S, Ji Z, Zhang Y, Sun S, Shang X. miR-3646 promotes vascular inflammation and augments vascular smooth muscle cell proliferation and migration in progression of coronary artery disease by directly targeting RHOH. *INT J CLIN EXP PATHO.* 11(12):5830-5839. eCollection 2018.
4. Chen Y, Zhao B, Zhu Y, Zhao H, Ma C. HIF-1-VEGF-Notch mediates angiogenesis in temporomandibular joint osteoarthritis. *Am J Transl Res.* 11(5):2969-2982. eCollection 2019.
5. Zhang Y, Huang N, Chen M, Jin H, Nie J, Shi J, Jin F. Procyanidin protects against 6-hydroxydopamine-induced dopaminergic neuron damage via the regulation of the PI3K/Akt signalling pathway. *Biomed Pharmacother.* 114:108789.
6. Tang Z, Tang Y, Li L, Liu T, Yang J. Limonin provokes hepatocellular carcinoma cells with stemness entry into cycle via activating PI3K/Akt signaling. *Biomed Pharmacother.* 117:109051.
7. Pang F, Liu C, Cui Y, Gong K, Liu G, Bian Y, Gao X, Zhang D. miR-17-5p promotes proliferation and migration of CAL-27 human tongue squamous cell carcinoma cells involved in autophagy inhibition under hypoxia. *INT J CLIN EXP PATHO.* 12(6):2084-2091. eCollection 2019.
8. Gong Z, Lin J, Zheng J, Wei L, Liu L, Peng Y, Liang W, Hu G. Dahuang Zhechong pill attenuates CCl4-induced rat liver fibrosis via the PI3K-Akt signaling pathway. *J Cell Biochem.* 121(2):1431-1440.
9. Huang N, Zhang Y, Chen M, Jin H, Nie J, Luo Y, Zhou S, Shi J, Jin F. Resveratrol delays 6-hydroxydopamine-induced apoptosis by activating the PI3K/Akt signaling pathway. *Exp Gerontol.* 124:110653.
10. Guo YX, Zhang GM, Yao XL, Tong R, Cheng CY, Zhang TT, Wang ST, Yang H, Wang F. Effects of nitric oxide on steroidogenesis and apoptosis in goat luteinized granulosa cells. *Theriogenology.* 126:55-62.
11. Han F, Guan X, Guo W, Lu B. Therapeutic potential of a TrkB agonistic antibody for ischemic brain injury. *Neurobiol Dis.* 127:570-581.
12. Yang X, Li Y, Zheng L, He X, Luo Y, Huang K, Xu W. Glucose-regulated protein 75 in foodborne disease models induces renal tubular necrosis. *Food Chem Toxicol.* 133:110720.
13. Chen H, Huang H, Zhao J, Wang Z, Chang M, Xue L, Zhu W, Chai Y, Li G, Wang Z, Wu H. Age-dependent copy number variations of TP53 tumour suppressor gene associated with altered phosphorylation status of p53 protein in sporadic schwannomas. *NEURO-ONCOLOGY.* 143(3):369-379.
14. Yan F, Sun X, Xu C. Protective effects of resveratrol improve cardiovascular function in rats with diabetes. *Exp Ther Med.* 15(2):1728-1734.
15. Qi H, Li A. JWA deficiency induces malignant transformation of murine embryonic fibroblast cells. *Exp Ther Med.* 15(4):3509-3515.
16. Huang X, Han X, Huang Z, Yu M, Zhang Y, Fan Y, Xu B, Zhou K, Song L, Wang X, Lu C, Xia Y. Maternal pentachlorophenol exposure induces developmental toxicity mediated by autophagy on pregnancy mice. *ECOTOX ENVIRON SAFE.* 169:829-836.
17. Xie Y, Ji R, Han M. Eriodictyol protects H9c2 cardiomyocytes against the injury induced by hypoxia/reoxygenation by improving the dysfunction of mitochondria. *Exp Ther Med.* 17(1):551-557.
18. Ahmed MF, El-Sayed AK, Chen H, Zhao R, Yusuf MS, Zuo Q, Zhang Y, Li B. Comparison between curcumin and all-trans retinoic acid in the osteogenic differentiation of mouse bone marrow mesenchymal stem cells. *Exp Ther Med.* 17(5):4154-4166.
19. Zhong J, Xu W. Characterization of DNA hydroxymethylation in the hypothalamus of elderly mice with post-operative cognitive dysfunction. *Exp Ther Med.* 18(5):4002-4010.
20. Zhu M, Zhao W, Zhao H, Zhang J. Diagnostic and prognostic value of microRNA-193b in patients with glioma and its effect on tumor progression. *Oncol Lett.* 18(5):4882-4890.
21. Lu Y, Liang M, Zhang Q, Liu Z, Song Y, Lai L, Li Z. Mutations of GADD45 in rabbits cause cleft lip by the disorder of proliferation, apoptosis and epithelial-mesenchymal transition (EMT). *BBA-MOL BASIS DIS.* 1865(9):2356-2367.
22. Li X, Zang S, Cheng H, Li J, Huang A. Overexpression of activating transcription factor 3 exerts suppressive effects in HepG2 cells. *Mol Med Rep.* 19(2):869-876.
23. Liu L, Guo Y, Zheng J, Lu Y, Shen Y, Huang C, Zeng Y, Wang X. Paneth cell ablation increases the small intestinal injury during acute necrotizing pancreatitis in rats. *Mol Med Rep.* 20(1):473-484.
24. Wang J, Cui K, Yang Z, Li T, Hua G, Han D, Yao Y, Chen J, Deng X, Yang X, Deng X. Transcriptome Analysis of Improved Wool Production in Skin-Specific Transgenic Sheep Overexpressing Ovine β -Catenin. *Int J Mol Sci.* 20(3). pii: E620.
25. Qi B, Xu S, Liang Y, Wang J, Zhang Z, Li J, Zhou J. Proapoptotic effects of 2,5-hexanedione on pheochromocytoma cells via oxidative injury. *Mol Med Rep.* 20(4):3249-3255.
26. Lou P, Zou S, Shang Z, He C, Gao A, Hou S, Zhou J. RAD18 contributes to the migration and invasion of human cervical cancer cells via the interleukin-1 β pathway. *Mol Med Rep.* 20(4):3415-3423.
27. Zhang S, Hu B, You Y, Yang Z, Liu L, Tang H, Bao W, Guan Y, Shen X. Sorting nexin 10 acts as a tumor suppressor in tumorigenesis and progression of colorectal cancer through regulating chaperone mediated autophagy degradation of p21Cip1/WAF1. *Cancer Lett.* 2018 Apr 10;419:116-127.
28. Liu H, Wang Y, Chen B, Shen X, Li W. Effects of Lidocaine-Mediated CPEB3 Upregulation in Human Hepatocellular Carcinoma Cell Proliferation In Vitro. *Biomed Res Int.* 2018 Apr 17;2018:8403157.
29. Di D, Chen L, Guo Y, Wang L, Wang H, Ju J. Association of BCSC-1 and MMP-14 with human breast cancer. *Oncol Lett.* 2018 Apr;15(4):5020-5026.
30. Zhu H, Huang Y, Su H, Ma Y, Tao Y, Liao DJ, Liu Y, Feng Z. Identification of a novel human estrogen receptor- α splice variant able to enhance malignant biological behaviors of breast cancer cells. *Oncol Lett.* 2018 Apr;15(4):5339-5344.
31. Zhao J, Bian C, Liu M, Zhao Y, Sun T, Xing F, Zhang J. Orchiectomy and letrozole differentially regulate synaptic plasticity and spatial memory in a manner that is mediated by SRC-1 in the hippocampus of male mice. *J STEROID BIOCHEM.* 2018 Apr;178:354-368.
32. Zhang X, Wang X, Liu T, Mo M, Ao L, Liu J, Cao J, Cui Z. ZnSO4 rescued vimentin from collapse in DBP-exposed Sertoli cells by attenuating ER stress and apoptosis. *Toxicol In Vitro.* 2018 Apr;48:195-204.
33. Liu X, Gao Q, Zhao N, Zhang X, Cui W, Sun J, Fu J, Hao J. Sohlh1 suppresses glioblastoma cell proliferation, migration, and invasion by inhibition of Wnt/ β -catenin signaling. *MOL CARCINOGEN.* 2018 Apr;57(4):494-502.
34. 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.
35. Xiong D, Wu YB, Jin C, Li JJ, Gu J, Liao YF, Long X, Zhu SQ, Wu HB, Xu JJ, Ding JY. Elevated FUS/TLS expression is negatively associated with E-cadherin expression and prognosis of patients with non-small cell lung cancer. *Oncol Lett.* 2018 Aug;16(2):1791-1800.
 36. Liu X, Zhang L, Liu Y, Cui J, Che S, An X, Song Y, Cao B. Circ-8073 regulates CEP55 by sponging miR-449a to promote caprine endometrial epithelial cells proliferation via the PI3K/AKT/mTOR pathway. *BBA-MOL CELL RES.* 2018 Aug;1865(8):1130-1147.
 37. Xu K, Tao W, Su Z. Propofol prevents IL-13-induced epithelial-mesenchymal transition in human colorectal cancer cells. *Cell Biol Int.* 2018 Aug;42(8):985-993.
 38. Pan X, Wang C, Li Y, Zhu L, Zhang T. Protective autophagy induced by physcion suppresses hepatocellular carcinoma cell metastasis by inactivating the JAK2/STAT3 Axis. *Life Sci.* 2018 Dec 1;214:124-135.
 39. Cui T, Xing T, Huang J, Mu F, Jin Y, You X, Chu Y, Li H, Wang N. Nuclear Respiratory Factor 1 Negatively Regulates the P1 Promoter of the Peroxisome Proliferator-Activated Receptor- γ Gene and Inhibits Chicken Adipogenesis. *Front Physiol.* 2018 Dec 19;9:1823.
 40. Zhou D, Chen YW, Zhao ZH, Yang RX, Xin FZ, Liu XL, Pan Q, Zhou H, Fan JG. Sodium butyrate reduces high-fat diet-induced non-alcoholic steatohepatitis through upregulation of hepatic GLP-1R expression. *Exp Mol Med.* 2018 Dec 3;50(12):157.
 41. Feng S, Huang Q, Ye C, Wu R, Lei G, Jiang J, Chen T, Peng Y, Fang R. Syk and JNK signaling pathways are involved in inflammasome activation in macrophages infected with Streptococcus pneumoniae. *BIOCHEM BIOPH RES CO.* 2018 Dec 9;507(1-4):217-222.
 42. He C, Yang J, Ding J, Li S, Wu H, Xiong Y, Zhou F, Jiang Y, Teng L, Yang J. Downregulation of glucose-6-phosphate dehydrogenase by microRNA-1 inhibits the growth of pituitary tumor cells. *Oncol Rep.* 2018 Dec;40(6):3533-3542.
 43. Zhou Q, Fu X, Wang X, Wu Q, Lu Y, Shi J, Klaunig JE, Zhou S. Autophagy plays a protective role in Mn-induced toxicity in PC12 cells. *Toxicology.* 2018 Feb 1;394:45-53.
 44. 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.
 45. Wang T, Ning K, Sun X, Zhang C, Jin LF, Hua D. Glycolysis is essential for chemoresistance induced by transient receptor potential channel C5 in colorectal cancer. *BMC Cancer.* 2018 Feb 20;18(1):207.
 46. Wang Y, Bi Y, Xia Z, Shi W, Li B, Li B, Chen L, Guo L. Butylphthalide ameliorates experimental autoimmune encephalomyelitis by suppressing PGAM5-induced necroptosis and inflammation in microglia. *BIOCHEM BIOPH RES CO.* 2018 Feb 26;497(1):80-86.
 47. Guo M, Li Y, Chen Y, Guo X, Yuan Z, Jiang Y. Genome-wide mapping of estrogen receptor α binding sites by ChIP-seq to identify genes related to sexual maturity in hens. *Gene.* 2018 Feb 5;642:32-42.
 48. Li F, Zhou J, Xu M, Yuan G. Exploration of G-quadruplex function in c-Myb gene and its transcriptional regulation by topotecan. *Int J Biol Macromol.* 2018 Feb;107(Pt B):1474-1479.
 49. Fang XZ, Ge YL, Li M, Huang TF, Yang Z, Gao J. Preconditioning of physiological cyclic stretch inhibits the inflammatory response induced by pathologically mechanical stretch in alveolar epithelial cells. *Exp Ther Med.* 2018 Feb;15(2):2172-2176.
 50. Huang D, Yin L, Liu X, Lv B, Xie Z, Wang X, Yu B, Zhang Y. Geraniin protects bone marrow-derived mesenchymal stem cells against hydrogen peroxide-induced cellular oxidative stress in vitro. *Int J Mol Med.* 2018 Feb;41(2):739-748.
 51. Han Y, Zhang L, Xing Y, Zhang L, Chen X, Tang P, Chen Z. Autophagy relieves the function inhibition and apoptosis-promoting effects on osteoblast induced by glucocorticoid. *Int J Mol Med.* 2018 Feb;41(2):800-808.
 52. Ma B, Hua K, Zhou S, Zhou H, Chen Y, Luo R, Bi D, Zhou R, He Q, Jin H. Haemophilus parasuis infection activates NOD1/2-RIP2 signaling pathway in PK-15 cells. *Dev Comp Immunol.* 2018 Feb;79:158-165.
 53. Yu C, Wang Y. MicroRNA-19a promotes cell viability and migration of chondrocytes via up-regulating SOX9 through NF- κ B pathway. *Biomed Pharmacother.* 2018 Feb;98:746-753.
 54. Ma M, Zhou QJ, Xiong Y, Li B, Li XT. Preeclampsia is associated with hypermethylation of IGF-1 promoter mediated by DNMT1. *Am J Transl Res.* 2018 Jan 15;10(1):16-39. eCollection 2018.
 55. Chen Y, Gao S, Yan Y, Qian J, Chen H. Aerosolized deferoxamine administration in mouse model of bronchopulmonary dysplasia improve pulmonary development. *Am J Transl Res.* 2018 Jan 15;10(1):325-332. eCollection 2018.
 56. Yao RR, Li JH, Zhang R, Chen RX, Wang YH. M2-polarized tumor-associated macrophages facilitated migration and epithelial-mesenchymal transition of HCC cells via the TLR4/STAT3 signaling pathway. *World J Surg Oncol.* 2018 Jan 16;16(1):9.
 57. Wang S, Liao L, Wang M, Zhou H, Huang Y, Wang Z, Chen D, Ji D, Xia X, Wang Y, Liu F, Huang J, Xiong K. Pin1 Promotes Regulated Necrosis Induced by Glutamate in Rat Retinal Neurons via CAST/Calpain2 Pathway. *Front Cell Neurosci.* 2018 Jan 22;11:425.
 58. Zhang J, Huang B, Hu G, Zhan X, Xie T, Li S, Zhang X, Li H, Ge RS, Xu Y. Aldosterone Blocks Rat Stem Leydig Cell Development In Vitro. *FRONT ENDOCRINOL.* 2018 Jan 24;9:4.
 59. Wang HF, Wang ZQ, Ding Y, Piao MH, Feng CS, Chi GF, Luo YN, Ge PF. Endoplasmic reticulum stress regulates oxygen-glucose deprivation-induced parthanatos in human SH-SY5Y cells via improvement of intracellular ROS. *CNS Neurosci Ther.* 2018 Jan;24(1):29-38.
 60. Li Z, Li Y, Zhou X, Dai P, Li C. Autophagy involved in the activation of the Nrf2-antioxidant system in testes of heat-exposed mice. *J Therm Biol.* 2018 Jan;71:142-152.
 61. Su M, Ran Y, He Z, Zhang M, Hu G, Tang W, Zhao D, Yu S. Inhibition of toll-like receptor 4 alleviates hyperalgesia induced by acute dural inflammation in experimental migraine. *Mol Pain.* 2018 Jan-Dec;14:1744806918754612.
 62. Liu Y, Huang Y, Zhang J, Pei C, Hu J, Lyu J, Shen Y. TIMMDC1 Knockdown Inhibits Growth and Metastasis of Gastric Cancer Cells through Metabolic Inhibition and AKT/GSK3 β / β -Catenin Signaling Pathway. *Int J Biol Sci.* 2018 Jul 27;14(10):1256-1267.
 63. Yu CD, Miao WH, Zhang YY, Zou MJ, Yan XF. Inhibition of miR-126 protects chondrocytes from IL-1 β induced inflammation via upregulation of Bcl-2. *Bone Joint Res.* 2018 Jul 7;7(6):414-421.
 64. Wen Y, Chen R, Zhu C, Qiao H, Liu Y, Ji H, Miao J, Chen L, Liu X, Yang Y. MiR-503 suppresses hypoxia-induced proliferation, migration and angiogenesis of endothelial progenitor cells by targeting Apelin. *Peptides.* 2018 Jul;105:58-65.
 65. Chu M, Wang T, Sun A, Chen Y. Nimesulide inhibits proliferation and induces apoptosis of pancreatic cancer cells by enhancing expression of PTEN. *Exp Ther Med.* 2018 Jul;16(1):370-376.
 66. Xie W, Lv A, Li R, Tang Z, Ma D, Huang X, Zhang R, Ge M. Agaricus blazei Murill Polysaccharides Protect Against Cadmium-Induced Oxidative Stress and Inflammatory Damage in Chicken Spleens. *Biol Trace Elem Res.* 2018 Jul;184(1):247-258.
 67. Wang Y, Wang W, Sun H. Bromodomain-containing protein 4 is critical for the antiproliferative and pro-apoptotic effects of gambogic acid in anaplastic thyroid cancer. *Int J Mol Med.* 2018 Jul;42(1):161-170.
 68. Wang Y, Yan X, Zeng S, Zhang T, Cheng F, Chen R, Duan C. UHRF2 promotes DNA damage response by decreasing p21 via RING finger domain. *Biotechnol Lett.* 2018 Jun 19.
 69. Zhu J, Jin J, Ding J, Li S, Cen P, Wang K, Wang H, Xia J. Ganoderic Acid A improves high fat diet-induced obesity, lipid accumulation and insulin sensitivity through regulating SREBP pathway. *CHEM-BIOL INTERACT.* 2018 Jun 25;290:77-87.
 70. Sun S, Wang T, Wang L, Li X, Jia Y, Liu C, Huang X, Xie W, Wang X. Natural selection of a GSK3 determines rice mesocotyl domestication by coordinating

- strigolactone and brassinosteroid signaling. *Nat Commun.* 2018 Jun 28;9(1):2523.
71. Li Y, Wang Y, Zhang W, Jiang L, Zhou W, Liu Z, Li S, Lu H. Overexpression of Amyloid Precursor Protein Promotes the Onset of Seborrhoeic Keratosis and is Related to Skin Ageing. *ACTA DERM-VENEREOL.* 2018 Jun 8;98(6):594-600.
 72. Sui X, Sui Y, Wang Y. LARP7 in papillary thyroid carcinoma induces NIS expression through suppression of the SHH signaling pathway. *Mol Med Rep.* 2018 Jun;17(6):7521-7528.
 73. Zhang L, Liu X, Liu J, Ma X, Zhou Z, Song Y, Cao B. miR-26a promoted endometrial epithelium cells (EECs) proliferation and induced stromal cells (ESCs) apoptosis via the PTEN-PI3K/AKT pathway in dairy goats. *J Cell Physiol.* 2018 Jun;233(6):4688-4706.
 74. Xing FZ, Zhao YG, Zhang YY, He L, Zhao JK, Liu MY, Liu Y, Zhang JQ. Nuclear and membrane estrogen receptor antagonists induce similar mTORC2 activation-reversible changes in synaptic protein expression and actin polymerization in the mouse hippocampus. *CNS Neurosci Ther.* 2018 Jun;24(6):495-507.
 75. Zhou J, Chen J, Zhang XM, Gao ZC, Liu CC, Zhang YN, Hou JX, Li ZY, Kan L, Li WL, Zhou B. Porcine Mx1 Protein Inhibits Classical Swine Fever Virus Replication by Targeting Nonstructural Protein NS5B. *J Virol.* 2018 Mar 14;92(7). pii: e02147-17.
 76. Di D, Chen L, Guo Y, Wang L, Zhao C, Ju J. BCSC-1 suppresses human breast cancer metastasis by inhibiting NF-κB signaling. *Int J Oncol.* 2018 Mar 7.
 77. Lai W, Xie X, Zhang X, Wang Y, Chu K, Brown J, Chen L, Hong G. Inhibition of Complement Drives Increase in Early Growth Response Proteins and Neuroprotection Mediated by Salidroside After Cerebral Ischemia. *Inflammation.* 2018 Mar;41(2):449-463.
 78. Liu D, Chen Q, Zhu H, Gong L, Huang Y, Li S, Yue C, Wu K, Wu Y, Zhang W, Huang G, Zhang L, Pu S, Wang D. Association of Respiratory Syncytial Virus Toll-Like Receptor 3-Mediated Immune Response with COPD Exacerbation Frequency. *Inflammation.* 2018 Mar;41(2):654-666.
 79. Zhang JH, Zhang XD, Yue LN, Guo XY, Tang JX, Guo LR, Li Y, Tang SS. Novel hGHRH homodimer promotes fertility of female infertile hamster by up-regulating ovarian GHRH receptor without triggering GH secretion. *Eur J Pharm Sci.* 2018 May 30;117:341-350.
 80. Lin J, Ma JC, Yang J, Yin JY, Chen XX, Guo H, Wen XM, Zhang TJ, Qian W, Qian J, Deng ZQ. Arresting of miR-186 and releasing of H19 by DDX43 facilitate tumorigenesis and CML progression. *Oncogene.* 2018 May;37(18):2432-2443.
 81. Zhong C, Jiang Z, Guo Q, Zhang X. Protective effect of adenovirus-mediated erythropoietin expression on the spiral ganglion neurons in the rat inner ear. *Int J Mol Med.* 2018 May;41(5):2669-2677.
 82. Wu A, Hu P, Lin J, Xia W, Zhang R. Activating Cannabinoid Receptor 2 Protects Against Diabetic Cardiomyopathy Through Autophagy Induction. *Front Pharmacol.* 2018 Nov 6;9:1292.
 83. Xiao FH, Chen XQ, Yu Q, Ye Y, Liu YW, Yan D, Yang LQ, Chen G, Lin R, Yang L, Liao X, Zhang W, Zhang W, Tang NL, Wang XF, Zhou J, Cai WW, He YH, Kong QP. Transcriptome evidence reveals enhanced autophagy-lysosomal function in centenarians. *Genome Res.* 2018 Nov;28(11):1601-1610.
 84. Ren H, Hu X, Liu Y, Dai D, Liu X, Wang Z, Yang Y, Li X, Liu Y, Tang R. *Salvia przewalskii* extract of total phenolic acids inhibit TLR4 signaling activation in podocyte injury induced by puromycin aminonucleoside in vitro. *RENAL FAILURE.* 2018 Nov;40(1):273-279.
 85. 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.
 86. Jiang X, Zhang N, Yin L, Zhang WL, Han F, Liu WB, Chen HQ, Cao J, Liu JY. A commercial Roundup® formulation induced male germ cell apoptosis by promoting the expression of XAF1 in adult mice. *Toxicol Lett.* 2018 Oct 15;296:163-172.
 87. Liu Z, Mei T. Immune thrombocytopenia induces autophagy and suppresses apoptosis in megakaryocytes. *Mol Med Rep.* 2018 Oct;18(4):4016-4022.
 88. Zhang L, Liu X, Ma X, Liu Y, Che S, Cui J, An X, Cao B, Song Y. Testin was regulated by circRNA3175-miR182 and inhibited endometrial epithelial cell apoptosis in pre-receptive endometrium of dairy goats. *J Cell Physiol.* 2018 Oct;233(10):6965-6974.
 89. Chen H, Xue L, Huang H, Wang H, Zhang X, Zhu W, Wang Z, Wang Z, Wu H. Synergistic effect of Nutlin-3 combined with MG-132 on schwannoma cells through restoration of merlin and p53 tumour suppressors. *EBioMedicine.* 2018 Oct;36:252-265.
 90. Hua K, Li Y, Zhou H, Hu X, Chen Y, He R, Luo R, Zhou R, Bi D, Jin H. *Haemophilus parasuis* Infection Disrupts Adherens Junctions and Initializes EMT Dependent on Canonical Wnt/β-Catenin Signaling Pathway. *FRONT CELL INFECT MI.* 2018 Sep 12;8:324.
 91. Jiang X, Yin L, Zhang N, Han F, Liu WB, Zhang X, Chen HQ, Cao J, Liu JY. Bisphenol A induced male germ cell apoptosis via IFNβ-XAF1-XIAP pathway in adult mice. *TOXICOL APPL PHARM.* 2018 Sep 15;355:247-256.
 92. Liu SQ, Wang LY, Liu GH, Tang DZ, Fan XX, Zhao JP, Jiao HC, Wang XJ, Sun SH, Lin H. Leucine alters immunoglobulin a secretion and inflammatory cytokine expression induced by lipopolysaccharide via the nuclear factor-κB pathway in intestine of chicken embryos. *Animal.* 2018 Sep;12(9):1903-1911.
 93. Li Y, Duan F, Zhou X, Pan H, Li R. Differential responses of GC-1 spermatogonia cells to high and low doses of bisphenol A. *Mol Med Rep.* 2018 Sep;18(3):3034-3040.
 94. Yang T, Cheng J, You J, Yan B, Liu H, Li F. S100B promotes chemoresistance in ovarian cancer stem cells by regulating p53. *Oncol Rep.* 2018 Sep;40(3):1574-1582.
 95. Liu M, Zhao G, Zhang D, An W, Lai H, Li X, Cao S, Lin X. Active fraction of clove induces apoptosis via PI3K/Akt/mTOR-mediated autophagy in human colorectal cancer HCT-116 cells. *Int J Oncol.* 2018 Sep;53(3):1363-1373.
 96. Lin Z, Chen B, Wu T, Xu X. Highly Tumorigenic Diffuse Large B Cell Lymphoma Cells Are Produced by Coculture with Stromal Cells. *ACTA HAEMATOL-BASEL.* 2018;139(4):201-216.
 97. Lang L, Hou Y, Chen Y, Tu G, Tao J, Yang D, Xi L, Fu L, Sun K, Yin J, Chen R, Peng M, Liu S, Liu M. ATM-Mediated Phosphorylation of Cortactin Involved in Actin Polymerization Promotes Breast Cancer Cells Migration and Invasion. *CELL PHYSIOL BIOCHEM.* 2018;51(6):2972-2988.
 98. 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.
 99. Chen Q, Duan J, Wu H, Li J, Jiang Y, Tang H, Li X, Kang L. Expression dynamics of gonadotropin-releasing hormone-I and its mutual regulation with luteinizing hormone in chicken ovary and follicles. *GEN COMP ENDOCR.* 2019 Jan 1;270:96-102.
 100. Li F, Tan W, Chen H, Zhou J, Xu M, Yuan G. Up- and downregulation of mature miR-1587 function by modulating its G-quadruplex structure and using small molecules. *Int J Biol Macromol.* 2019 Jan;121:127-134.
 101. Wang H, Zhang R, Song Y, Li T, Ge M. Protective Effect of Ganoderma Triterpenoids on Cadmium-Induced Testicular Toxicity in Chickens. *Biol Trace Elem Res.* 2019 Jan;187(1):281-290.
 102. Zhang XD, Guo XY, Tang JX, Yue LN, Zhang JH, Liu T, Dong YX, Tang SS. Erratum to: The treatment effect of novel hGHRH homodimer to male infertility hamster. *KOREAN J PHYSIOL PHA.* 2019 Jan;23(1):89.
 103. Li T, Yu H, Song Y, Zhang R, Ge M. Protective effects of Ganoderma triterpenoids on cadmium-induced oxidative stress and inflammatory injury in chicken livers. *J TRACE ELEM MED BIO.* 2019 Mar;52:118-125.
 104. Lian J, Xia L, Chen Y, Zheng J, Ma K, Luo L, Ye F. Aldolase B impairs DNA mismatch repair and induces apoptosis in colon adenocarcinoma. *Pathol Res Pract.* 215(11):152597.
 105. Wu SH, Han L, Lu BC, Wang HY, Zheng CP. MiR-99a inhibits cell proliferation of nasopharyngeal carcinoma by targeting mTOR and serves as a prognostic factor. *EUR REV MED PHARMACO.* 23(5):2053-2061.
 106. Zhang YY, Liu MY, Liu Z, Zhao JK, Zhao YG, He L, Li W, Zhang JQ.

- GPR30-mediated estrogenic regulation of actin polymerization and spatial memory involves SRC-1 and PI3K-mTORC2 in the hippocampus of female mice. *CNS Neurosci Ther.* 25(6):714-733.
107. Lu K, Wang H, Ge X, Liu Q, Chen M, Shen Y, Liu X, Pan S. Hyperbaric Oxygen Protects Against Cerebral Damage in Permanent Middle Cerebral Artery Occlusion Rats and Inhibits Autophagy Activity. *Neurocrit Care.* 30(1):98-105.
 108. Sun T, Liu Z, Liu M, Guo Y, Sun H, Zhao J, Lan Z, Lian B, Zhang J. Hippocampus-specific Rictor knockdown inhibited 17 β -estradiol induced neuronal plasticity and spatial memory improvement in ovariectomized mice. *Behav Brain Res.* 364:50-61.
 109. Zuo R, Wang Y, Li J, Wu J, Wang W, Li B, Sun C, Wang Z, Shi C, Zhou Y, Liu M, Zhang C. Rapamycin Induced Autophagy Inhibits Inflammation-Mediated Endplate Degeneration by Enhancing Nrf2/Keap1 Signaling of Cartilage Endplate Stem Cells. *Stem Cells.* 37(6):828-840.
 110. Sun H, Liu M, Sun T, Chen Y, Lan Z, Lian B, Zhao C, Liu Z, Zhang J, Liu Y. Age-related changes in hippocampal AD pathology, actin remodeling proteins and spatial memory behavior of male APP/PS1 mice. *Behav Brain Res.* 376:112182.
 111. Zhao WJ, Zhang ZJ, Zhu ZY, Song Q, Zheng WJ, Hu X, Mao L, Lian HZ. Time-dependent response of A549 cells upon exposure to cadmium. *J Appl Toxicol.* 38(11):1437-1446.
 112. Zhu L, Li XX, Shi L, Wu J, Qian JY, Xia TS, Zhou WB, Sun X, Zhou XJ, Wei JF, Ding Q. Rapamycin enhances the sensitivity of ER-positive breast cancer cells to tamoxifen by upregulating p73 expression. *Oncol Rep.* 41(1):455-464.
 113. Zhang X, Yang Y, Li X, Zhang H, Gang Y, Bai L. Alterations of autophagy in knee cartilage by treatment with treadmill exercise in a rat osteoarthritis model. *Int J Mol Med.* 43(1):336-344.
 114. Song JL, Qian B, Pan C, Lv F, Wang H, Gao Y, Zhou Y. Protective activity of mogroside V against ovalbumin-induced experimental allergic asthma in Kunming mice. *J Food Biochem.* 43(9):e12973.
 115. Lv Q, Xie L, Cheng Y, Shi Y, Shan W, Ning C, Xie B, Yang B, Luo X, He Q, Zhu Q, Zhang Y, Zhang Z, Wang C, Chen X, Xu C. A20-mediated deubiquitination of ER α in the microenvironment of CD163+ macrophages sensitizes endometrial cancer cells to estrogen. *Cancer Lett.* 442:137-147.
 116. Li S, Xu K, Gu D, He L, Xie L, Chen Z, Fan Z, Zhu L, Du M, Chu H, Zhang Z, Wu Y, Ni M, Wang M. Genetic variants in RPA1 associated with the response to oxaliplatin-based chemotherapy in colorectal cancer. *J Gastroenterol.* 54(11):939-949.
 117. Pang J, Han L, Liu Z, Zheng J, Zhao J, Deng K, Wang F, Zhang Y. ULK1 affects cell viability of goat Sertoli cell by modulating both autophagy and apoptosis. *IN VITRO CELL DEV-AN.* 55(8):604-613.
 118. Hou S, Chen J, Yang J. Autophagy precedes apoptosis during degeneration of the Kölliker's organ in the development of rat cochlea. *Eur J Histochem.* 63(2).
 119. Liu M, Xing F, Bian C, Zhao Y, Zhao J, Liu Y, Zhang J. Letrozole induces worse hippocampal synaptic and dendritic changes and spatial memory impairment than ovariectomy in adult female mice. *Neurosci Lett.* 706:61-67.
 120. Zhang YL, Li PZ, Pang J, Wan YJ, Zhang GM, Fan YX, Wang ZY, Tao NH, Wang F. Induction of goat bone marrow mesenchymal stem cells into putative male germ cells using mRNA for STRA8, BOULE and DAZL. *Cytotechnology.* 71(2):563-572.
 121. Xiao D, Bi R, Liu X, Mei J, Jiang N, Zhu S. Notch Signaling Regulates MMP-13 Expression via Runx2 in Chondrocytes. *SCI REP-UK.* 9(1):15596.
 122. Yu Q, Pu SY, Wu H, Chen XQ, Jiang JJ, Gu KS, He YH, Kong QP. TICRR Contributes to Tumorigenesis Through Accelerating DNA Replication in Cancers. *Front Oncol.* 9:516.
 123. Weijun Zhao, Yandan Zhang, Yonggang Zhu. Circular RNA circ β -catenin aggravates the malignant phenotype of non-small-cell lung cancer via encoding a peptide. *J Clin Lab Anal.* doi: 10.1002/jcl.a.23900.
 124. Xiaorui Liu, Lei Zhang, Lichun Yang, Jiuzeng Cui, Sicheng Che, Yuexia Liu, Jincheng Han, Xiaopeng An, Binyun Cao, Yuxuan Song. miR-34a/c induce caprine endometrial epithelial cell apoptosis by regulating circ-8073/CEP55 via the RAS/RAF/MEK/ERK and PI3K/AKT/mTOR pathways. *J Cell Physiol.* doi: 10.1002/jcp.29821.
 125. Animesh Chandra Roy, Guangjun Chang, Shipra Roy, Nana Ma, Qianyun Gao, Xiangzhen Shen. γ -d-Glutamyl-meso-diaminopimelic acid induces autophagy in bovine hepatocytes during nucleotide-binding oligomerization domain 1-mediated inflammation. *J Cell Physiol.* doi: 10.1002/jcp.30227.
 126. Shaoping Zhong, Yangye Lian, Wenqi Luo, Rongkui Luo, Xiaoling Wu, Jun Ji, Yuan Ji, Jing Ding, Xin Wang, Upstream open reading frame with NOTCH2NLC GGC expansion generates polyglycine aggregates and disrupts nucleocytoplasmic transport: implications for polyglycine diseases. *Acta Neuropathol.* doi: 10.1007/s00401-021-02375-3.
 127. Miaomiao Sun, Na He, Zhigang Lv. Polysaccharides extracted from Cassia seeds protect against high glucose-induced retinal endothelial cell injury. *Int Ophthalmol.* doi: 10.1007/s10792-021-01801-5.
 128. Zhen Lan, Zhaoyou Meng, Biyao Lian, Mengying Liu, Tao Sun, Huan Sun, Zhi Liu, Zhenxin Hu, Qiang Guo, Jiqiang Zhang. Hippocampal Aromatase Knockdown Aggravates Ovariectomy-Induced Spatial Memory Impairment, A β Accumulation and Neural Plasticity Deficiency in Adult Female Mice. *Neurochem Res.* doi: 10.1007/s11064-021-03258-5.
 129. Hyo-Jin Paek, Zhao-Bo Luo, Hak-Myong Choe, Biao-Hu Quan, Kai Gao, Sheng-Zhong Han, Zhou-Yan Li, Jin-Dan Kang, Xi-Jun Yin. Association of myostatin deficiency with collagen related disease-umbilical hernia and tippy toe standing in pigs. *Transgenic Res.* doi: 10.1007/s11248-021-00275-6.
 130. Yinxia Li, Xue Bai, Min Gao, Haikun Chen, Xiaoyao Ma, Yihan Zhang, Huhu Bai, Yanni Liu, Xiaodong Hu, Zhanwei Suo. AKAP150 and its Palmitoylation Contributed to Pain Hypersensitivity Via Facilitating Synaptic Incorporation of GluA1-Containing AMPA Receptor in Spinal Dorsal Horn. *Mol Neurobiol.* doi: 10.1007/s12035-021-02570-z.
 131. Xuan He, Zhiqi Han, Weidong Jiang, Fangfang Huang, Chao Ren, Qian Wei, Nuo Zhou. Hypoxia improved vasculogenesis in distraction osteogenesis through Mesenchymal-Epithelial transition (MET), Wnt/ β -catenin signaling pathway, and autophagy. *Acta Histochem.* doi: 10.1016/j.acthis.2020.151593.
 132. Teng Wang, Na Li, Linfang Jin, Xiaowei Qi, Chun Zhang, Dong Hua. The calcium pump PMCA4 prevents epithelial-mesenchymal transition by inhibiting NFATc1-ZEB1 pathway in gastric cancer. *BBA-MOL CELL RES.* doi: 10.1016/j.bbamcr.2020.118833.
 133. Biyao Lian, Mengying Liu, Zhen Lan, Tao Sun, Zhaoyou Meng, Qing Chang, Zhi Liu, Jiqiang Zhang, Chengjun Zhao. Hippocampal overexpression of SGK1 ameliorates spatial memory, rescues A β pathology and actin cytoskeleton polymerization in middle-aged APP/PS1 mice. *Behav Brain Res.* doi: 10.1016/j.bbr.2020.112503.
 134. Wenxi Zhou, Yu Zhou, Xinli Chen, Tingting Ning, Hongyi Chen, Qin Guo, Yiwen Zhang, Peixin Liu, Yujie Zhang, Chao Li, Yongchao Chu, Tao Sun, Chen Jiang. Pancreatic cancer-targeting exosomes for enhancing immunotherapy and reprogramming tumor microenvironment. *Biomaterials.* doi: 10.1016/j.biomaterials.2020.120546.
 135. Xiangfeng Chen, Yanfei He, Yongliang Zhu, Jing Du, Hongxiang Sun. linc-AAM Facilitates Gene Expression Contributing to Macrophage Activation and Adaptive Immune Responses. *Cell Rep.* doi: 10.1016/j.celrep.2020.108584.
 136. Zhi-Hua Liu, Jin Shang, Lailai Yan, Tian Wei, Ling Xiang, Hui-Li Wang, Jigui Cheng, Guiran Xiao. Oxidative stress caused by lead (Pb) induces iron deficiency in *Drosophila melanogaster*. *Chemosphere.* doi: 10.1016/j.chemosphere.2019.125428.
 137. Kexin Hua, Huimin Gong, Qingrong Xu, Tingting Li, Bin Ma, Yangjie Li, Rongrong He, Dingren Bi, Rui Zhou, Rui Luo, Ling Zhao, Hui Jin. P38 mitogen-activated protein kinase promotes Wnt/ β -catenin signaling by impeding Dickkopf-1 expression during *Haemophilus parasuis* infection. *Cytokine.* doi: 10.1016/j.cyto.2020.155287.
 138. Kexin Hua, Mingyang Wang, Yishun Jin, Yuan Gao, Rui Luo, Dingren Bi, Rui Zhou, Hui Jin. P38 MAPK pathway regulates the expression of resistin in porcine alveolar macrophages via Ets2 during *Haemophilus parasuis* stimulation. *Dev*

Comp Immunol. doi: 10.1016/j.dci.2021.104327.

139. Guohai Zhang, Liangping Li, Jingai Bi, Yiming Wu, Erguang Li. Targeting DNA and mutant p53 by a naphthalimide derivative, NA20, exhibits selective inhibition in gastric tumorigenesis by blocking mutant p53-EGFR signaling pathway. Eur J Pharmacol. doi: 10.1016/j.ejphar.2020.173584.
140. Dingwei Cang, Guoyou Zou, Chi Yang, Xiaofei Shen, Feng Li, Ya Wu, Biao Ji. Dencichine prevents ovariectomy-induced bone loss and inhibits osteoclastogenesis by inhibiting RANKL-associated NF- κ B and MAPK signaling pathways. J Pharmacol Sci. doi: 10.1016/j.jphs.2021.04.004.
141. Yue Zhao, Cong Wang, Xue Hong, Jinhua Miao, Yulin Liao, Fan Fan Hou, Lili Zhou, Youhua Liu. Wnt/ β -catenin signaling mediates both heart and kidney injury in type 2 cardiorenal syndrome. Kidney Int. doi: 10.1016/j.kint.2018.11.021.
142. Xiuxiu Chen, Yiqin Tian, Haitao Zhu, Chen Bian, Min Li. Inhibition of steroid receptor coactivator-1 in the hippocampus impairs the consolidation and reconsolidation of contextual fear memory in mice. Life Sci. doi: 10.1016/j.lfs.2020.117386.
143. Zhaojian Li, Yansen Li, Yu Ren, Chunmei Li. High ambient temperature disrupted the circadian rhythm of reproductive hormones and changed the testicular expression of steroidogenesis genes and clock genes in male mice. Mol Cell Endocrinol. doi: 10.1016/j.mce.2019.110639.
144. Wei Jiang, Jie Chen, Zhi-Ping Guo, Le Zhang, Guang-Ping Chen. Molecular characterization of a MOSPD2 homolog in the barbel sted (Hemibarbus labeo) and its involvement in monocyte/macrophage and neutrophil migration. Mol Immunol. doi: 10.1016/j.molimm.2020.01.002.
145. Zhiyun Wei, Xingjun Meng, Rachid El Fatimy, Bowen Sun, Dongmei Mai, Junfang Zhang, Ramil Arora, Ailiang Zeng, Pingyi Xu, Shaogang Qu, Anna M Krichevsky, Dennis J Selkoe, Shaomin Li. Environmental enrichment prevents A β oligomer-induced synaptic dysfunction through mirna-132 and hdac3 signaling pathways. Neurobiol Dis. doi: 10.1016/j.nbd.2019.104617.
146. Yixuan Wu, Zhigang Jiao, Zhiting Wan, Shaogang Qu. Role of autophagy and oxidative stress to astrocytes in fenpropathrin-induced Parkinson-like damage. Neurochem Int. doi: 10.1016/j.neuint.2021.105000.
147. Pinghu Zhang, Li Ling, Zuguo Zheng, Yuqian Zhang, Ronghua Wang, Min Wu, Ni Zhang, Maozhi Hu, Xiaohui Yang. ATG7-dependent and independent autophagy determine the type of treatment in lung cancer. Pharmacol Res. doi: 10.1016/j.phrs.2020.105324.
148. Yingying Zhang, Jiaqi Tang, Na Li, Jianying Tao, Yan Zhang, Yumeng Zhang, Yang Ye, Qiutong Zheng, Ting Xu, Yanping Liu, Pengjie Zhang, Lingjun Li, Huan Li, Yun He, Hongyu Su, Qinyuan He, Miao Sun, Zhice Xu. Prenatal hypoxia induced ETBR activation and abnormal ROS signalling in pulmonary artery cells of rat offspring. Reprod Toxicol. doi: 10.1016/j.reprotox.2021.08.009.
149. Yueqi Wang, Changjian Li, Xiaojie Zhang, Xiaoxuan Kang, Yaru Li, Wenyu Zhang, Yan Chen, Yang Liu, Weigang Wang, Maofa Ge, Libo Du. Exposure to PM2.5 aggravates Parkinson's disease via inhibition of autophagy and mitophagy pathway. Toxicology. doi: 10.1016/j.tox.2021.152770.
150. Qiwen Shi, Bei Hu, Chen Yang, Shufen Deng, Xiang Cheng, Jing Wu, Nan Qi. ATF3 inhibits arsenic-induced malignant transformation of human bronchial epithelial cells by attenuating inflammation. Toxicology. doi: 10.1016/j.tox.2021.152890.
151. Haidi Huang, Xin Wang, Xue Zhang, Hongbo Wang, Wanglin Jiang. Roxadustat attenuates experimental pulmonary fibrosis in vitro and in vivo. Toxicol Lett. doi: 10.1016/j.toxlet.2020.06.009.
152. Zhigang Wang, Hongsai Chen, Lu Xue, Weiwei He, Wenying Shu, Hao Wu, Zhaoyan Wang. High throughput proteomic and metabolic profiling identified target correction of metabolic abnormalities as a novel therapeutic approach in head and neck paraganglioma. Transl Oncol. doi: 10.1016/j.tranon.2021.101146.
153. Zi-Long Song, Junmin Zhang, Qianhe Xu, Danfeng Shi, Xiaojun Yao, Jianguo Fang. Structural Modification of Aminophenylarsenoxides Generates Candidates for Leukemia Treatment via Thioredoxin Reductase Inhibition. J Med Chem. doi: 10.1021/acs.jmedchem.1c01441.
154. Cheng Wang, Shaobo Wang, Yin Chen, Jianqi Zhao, Songling Han, Gaomei Zhao, Jing Kang, Yong Liu, Liting Wang, Xiaoyang Wang, Yang Xu, Song Wang, Yi Huang, Junping Wang, Jinghong Zhao. Membrane Nanoparticles Derived from ACE2-Rich Cells Block SARS-CoV-2 Infection. ACS Nano. doi: 10.1021/acsnano.0c06836.
155. Shuaishuai Zhuo, Miaomiao Sun, Rumeng Bai, Die Lu, Shihao Di, Tianshi Ma, Zigu Zou, Hongxia Li, Zhihong Zhang. Long intergenic non-coding RNA 00473 promotes proliferation and migration of gastric cancer via the miR-16-5p/CCND2 axis and by regulating AQP3. Cell Death Dis. doi: 10.1038/s41419-021-03775-9.
156. Xunsi Qin, Yue Zhao, Tianyi Zhang, Chenghong Yin, Jie Qiao, Wei Guo, Bai Lu. TrkB agonist antibody ameliorates fertility deficits in aged and cyclophosphamide-induced premature ovarian failure model mice. Nat Commun. doi: 10.1038/s41467-022-28611-2.
157. Minjian Chen, Jing Yang, Lei Li, Yanhui Hu, Xiaomei Lu, Rongli Sun, Yubang Wang, Xinru Wang, Xiaoling Zhang. Metabolomics Reveals that Cysteine Metabolism Plays a Role in Celastral-Induced Mitochondrial Apoptosis in HL-60 and NB-4 Cells. SCI REP-UK. doi: 10.1038/s41598-019-57312-y.
158. Jiyue Ge, Likai Mao, Weiqiang Xu, Wenge Fang, Ningning Wang, Dawen Ye, Zhuang Dong, Han Guan, Chao Guan. miR-103a-3p Suppresses Cell Proliferation and Invasion by Targeting Tumor Protein D52 in Prostate Cancer. J Invest Surg. doi: 10.1080/08941939.2020.1738602.
159. Jing Liu, Guangjun Chang, Jie Huang, Nana Ma, Yan Wang, Animesh Chandra Roy, Xiangzhen Shen. Sodium butyrate pretreatment mitigates lipopolysaccharide-induced inflammation through the TLR4/NF- κ B signaling pathway in bovine embryo trachea cells. Anim Biotechnol. doi: 10.1080/10495398.2021.1919129.
160. Baoming Xie, Mingqiu Zhao, Dan Song, Keke Wu, Lin Yi, Wenhui Li, Xiaoming Li, Kun Wang, Jinding Chen. Induction of autophagy and suppression of type I IFN secretion by CSFV. Autophagy. doi: 10.1080/15548627.2020.1739445.
161. Fei Liu, Jiazheng Wei, Yanrong Hao, Jiao Lan, Wei Li, Jingjin Weng, Min Li, Cheng Su, Bing Li, Mingzheng Mo, Fengzhu Tang, Yongli Wang, Yong Yang, Wei Jiao, Shenhong Qu. Long intergenic non-protein coding RNA 02570 promotes nasopharyngeal carcinoma progression by adsorbing microRNA miR-4649-3p thereby upregulating both sterol regulatory element binding protein 1, and . Bioengineered. doi: 10.1080/21655979.2021.1979317.
162. Jianjun Li, Zhihao Li, Chengqiang Wang, Zhihia Li, Haixia Xu, Yunteng Hu, Zhiwen Tan, Fu Zhang, Chun Liu, Minsheng Yang, Yihan Wang, Yanglei Jin, Ziyue Peng, Sourabh Biswas, Lixin Zhu. The Regulatory Effect of VEGF-Ax on Rat Bone Marrow Mesenchymal Stem Cells' Angioblastic Differentiation and Its Proangiogenic Ability. Stem Cells Dev. doi: 10.1089/scd.2019.0198.
163. Jian Zhao, Wenqiang Li, Yue Wang, Yuanhe Jiang, Chunyan Ding, Huaibin Li, Jian Ding, Lin Wang. The effect of electroacupuncture on the expression of Sirt1 and STAT3 in hippocampus and amygdala of vascular dementia rats. Neuroreport. doi: 10.1097/WNR.00000000000001814.
164. Weipeng Hu, Shan Jiang, Yixin Liao, Jinhong Li, Fang Dong, Jie Guo, Xiaohua Wang, Lingyan Fei, Yu Cui, Xiaoqiu Ren, Nan Xu, Liang Zhao, Limeng Chen, Yali Zheng, Lingli Li, Andreas Patzak, Pontus B Persson, Zhihua Zheng, En Yin Lai. High phosphate impairs arterial endothelial function through AMPK-related pathways in mouse resistance arteries. ACTA PHYSIOL. doi: 10.1111/apha.13595.
165. Jie Feng, Jing-Xue Wang, Ye-Hong Du, Ying Liu, Wei Zhang, Jing-Fei Chen, Yuan-Jie Liu, Min Zheng, Ke-Jian Wang, Gui-Qiong He. Dihydromyricetin Inhibits Microglial Activation and Neuroinflammation by Suppressing NLRP3 Inflammasome Activation in APP/PS1 Transgenic Mice. CNS Neurosci Ther. doi: 10.1111/cns.12983.
166. Jin-Lin Wang, Xiao-Yu Wang, Deng-Ke Wang, Mark D Parker, Raif Musa-Aziz, Jacob Popple, Yi-Min Guo, Tian-Xin Min, Tian Xia, Min Tan, Ying Liu, Walter F Boron, Li-Ming Chen. Multiple acid-base and electrolyte disturbances upregulate NBCn1, NBCn2, IRBIT and L-IRBIT in the mTAL. J Physiol. doi: 10.1113/JP279009.
167. Fu-Hui Xiao, Qin Yu, Zhi-Li Deng, Ke Yang, Yunshuang Ye, Ming-Xia Ge, Dongjing Yan, Hao-Tian Wang, Xiao-Qiong Chen, Li-Qin Yang, Bin-Yu Yang, Rong Lin, Wen Zhang, Xing-Li Yang, Lei Dong, Yonghan He, Jumin Zhou, Wang-Wei Cai, Ji Li, Qing-Peng Kong. ETS1 acts as a regulator of human healthy aging via decreasing

ribosomal activity. *Sci Adv.* doi: 10.1126/sciadv.abf2017.

168. Jiaoqiao Peng, Yeqian Ran, Haojun Xie, Ling Deng, Chufang Li, Chen Ling. Sarco/Endoplasmic Reticulum Ca²⁺ Transporting ATPase (SERCA) Modulates Autophagic, Inflammatory, and Mitochondrial Responses during Influenza A Virus Infection in Human Lung Cells. *J Virol.* doi: 10.1128/JVI.00217-21.
169. Weiwei Wang, Hongwei Yu, Yongliang Pan, Shengwen Shao. Combined Treatment With H1 and H4 Receptor Antagonists Improves Th2 Inflammatory Responses in the Nasal Mucosa of Allergic Rhinitis Rats. *Am J Rhinol Allergy.* doi: 10.1177/19458924211002604.
170. Chong Zeng, Zhongbao Shao, Zibo Wei, Jie Yao, Weidong Wang, Liang Yin, Huixian YangOu, Dan Xiong. The NOTCH-HES-1 axis is involved in promoting Th22 cell differentiation. *Cell Mol Biol Lett.* doi: 10.1186/s11658-021-00249-w.
171. Xueqin Chen, Yan Wang, Hancong Liu, Jingjing Zhang, Jie Wang, Xiaobao Jin, Yan Ma. CSP I-plus modified rEndostatin inhibits hepatocellular carcinoma metastasis via down-regulation of VEGFA and integrin β 1. *BMC Cancer.* doi: 10.1186/s12885-022-10318-8.
172. Jun Zhao, Rubo Zhang, Ling Zhu, Huidan Deng, Fengqing Li, Lei Xu, Jianbo Huan, Xiangang Sun, Zhiwen Xu. Establishment of a peptide-based enzyme-linked immunosorbent assay for detecting antibodies against PRRSV M protein. *BMC Vet Res.* doi: 10.1186/s12917-021-03060-z.
173. Mengyang Zhao, Zibo Tang, Yijun Wang, Jiaojiao Ding, Ying Guo, Tianhui Gao. A direct negative feedback loop of miR-4721/FOXA1/Nanog promotes nasopharyngeal cell stem cell enrichment and metastasis. *J Transl Med.* doi: 10.1186/s12967-021-03059-y.
174. Dan Cao, Yuan Wang, Yingjie Zhang, Yinping Zhang, Qi Huang, Zhong Yin, Guangyan Cai, Xiangmei Chen, Xuefeng Sun. Regulation of connective tissue growth factor expression by miR-133b for the treatment of renal interstitial fibrosis in aged mice with unilateral ureteral obstruction. *Stem Cell Res Ther.* doi: 10.1186/s13287-021-02210-2.
175. Jia Lu, Wei Zhou, Fangfang Dou, Chenfei Wang, Zhihua Yu. TRPV1 sustains microglial metabolic reprogramming in Alzheimer's disease. *EMBO Rep.* doi: 10.15252/embr.202052013.
176. Beibei Fu, Xiaoyuan Lin, Shun Tan, Rui Zhang, Weiwei Xue, Haiwei Zhang, Shanfu Zhang, Qingting Zhao, Yu Wang, Kelly Feldman, Lei Shi, Shaolin Zhang, Weiqi Nian, Krishna Chaitanya Pavani, Zhifeng Li, Xingsheng Wang, Haibo Wu. MiR-342 controls Mycobacterium tuberculosis susceptibility by modulating inflammation and cell death. *EMBO Rep.* doi: 10.15252/embr.202052252.
177. Jiju Wang, Yunhui Tang, Songcun Wang, Liyuan Cui, Dajin Li, Meirong Du. Norepinephrine exposure restrains endometrial decidualization during early pregnancy. *J Endocrinol.* doi: 10.1530/JOE-20-0479.
178. Hui Liu, Shucui Li, Yangyang Xu, Xin Wang, Rui Ren, Haibo Zhu, Shuping Zhang. Engeletin protects against cerebral ischemia/reperfusion injury by modulating the VEGF/vasohibin and Ang-1/Tie-2 pathways. *Braz J Med Biol Res.* doi: 10.1590/1414-431X2020e11028.
179. Xu Jia, Ziren Luo, Ying Gao, Hua Liu, Xinghai Liu, Wenli Mai, Hong Liu, Qian Zheng. EGCG Upregulates UCP 3 Levels to Protect MIN 6 Pancreatic Islet Cells from Interleukin-1 β -Induced Apoptosis. *DRUG DES DEV THER.* doi: 10.2147/DDDT.S270345.
180. Ming Chen, Kangjing Xu, Bowen Li, Nuofan Wang, Qiang Zhang, Liang Chen, Diancai Zhang, Li Yang, Zekuan Xu, Hao Xu. HMGA1 Regulates the Stem Cell-Like Properties of Circulating Tumor Cells from GIST Patients via Wnt/ β -Catenin Pathway. *ONCOTARGETS THER.* doi: 10.2147/OTT.S249063.
181. Xiaoye Cheng, Zain-Ur Aabdin, Yan Wang, Nana Ma, Hongyu Dai, Xiaoli Shi, Xiangzhen Shen. Glutamine pretreatment protects bovine mammary epithelial cells from inflammation and oxidative stress induced by γ -d-glutamyl-meso-diaminopimelic acid (iE-DAP). *J Dairy Sci.* doi: 10.3168/jds.2020-18402.
182. Yue Zhang, Jidan Liu, Wenfei Li, Fangjun Cao, Guanglin Niu, Shengyue Ji, Xiaoyan Du, Binyun Cao, Xiaopeng An. A Regulatory Circuit Orchestrated by Novel-miR-3880 Modulates Mammary Gland Development. *Front Cell Dev Biol.* doi: 10.3389/fcell.2020.000383.
183. Yue Zhang, Qiong Wu, Guanglin Niu, Jidan Liu, Fangjun Cao, Xiaopeng An, Binyun Cao. EGF-Induced miR-223 Modulates Goat Mammary Epithelial Cell Apoptosis and Inflammation via ISG15. *Front Cell Dev Biol.* doi: 10.3389/fcell.2021.660933.
184. Qianyun Hao, Zhuangzhuang Liu, Liaojun Lu, Lichen Zhang, Li Zuo. Both JNK1 and JNK2 Are Indispensable for Sensitized Extracellular Matrix Mineralization in IKK β -Deficient Osteoblasts. *FRONT ENDOCRINOL.* doi: 10.3389/fendo.2020.00013.
185. Yijing Zhang, Zhongyi Zhu, He Li, Mingjiang Zhu, Xiandong Peng, Aijie Xin, Ronggui Qu, Wen He, Jing Fu, Xiaoxi Sun. Resolvin E1 in Follicular Fluid Acts as a Potential Biomarker and Improves Oocyte Developmental Competence by Optimizing Cumulus Cells. *FRONT ENDOCRINOL.* doi: 10.3389/fendo.2020.00210.
186. Tingting Lin, Yongyi Ma, Danni Zhou, Liwei Sun, Ke Chen, Yezhou Xiang, Keya Tong, Chaoli Jia, Kean Jiang, Dongyun Liu, Guoning Huang. Case Report: Preimplantation Genetic Testing for Meckel Syndrome Induced by Novel Compound Heterozygous Mutations of MKS1. *Front Genet.* doi: 10.3389/fgene.2022.843931.
187. Xin Zhang, Yonghong Yang, Lina Jing, Weiwei Zhai, Hui Zhang, Qun Ma, Chunxia Li, Fenglian Yan, Dalei Cheng, Junfeng Zhang, Zhaochen Ning, Hui Shi, Changying Wang, Mingsheng Zhao, Jun Dai, Zhihua Li, Jiankuo Ming, Meimei Yu, Haiyan Wang, Hongyan Cheng, Huabao Xiong, Guanjun Dong. Pyruvate Kinase M2 Contributes to TLR-Mediated Inflammation and Autoimmunity by Promoting Pyk2 Activation. *Front Immunol.* doi: 10.3389/fimmu.2021.680068.
188. Fenglian Yan, Dalei Cheng, Haiyan Wang, Min Gao, Junfeng Zhang, Hongyan Cheng, Changying Wang, Hui Zhang, Huabao Xiong. Corilagin Ameliorates Con A-Induced Hepatic Injury by Restricting M1 Macrophage Polarization. *Front Immunol.* doi: 10.3389/fimmu.2021.807509.
189. Yang Wang, Hongling He, Jiesen Li, Luman Chen, Jun Luo, Yanqi Kuang, Ziyu Lv, Ruqi Fan, Boyue Zhang, Yongwen Luo, Xiaofeng Guo. Rabies Virus-Induced Autophagy Is Dependent on Viral Load in BV2 Cells. *Front Microbiol.* doi: 10.3389/fmicb.2021.595678.
190. Jingying Xie, Xiangbo Zhang, Lei Chen, Yingjie Bi, Adi Idris, Shujuan Xu, Xiangrong Li, Yong Zhang, Ruofei Feng. Pseudorabies Virus US3 Protein Inhibits IFN- β Production by Interacting With IRF3 to Block Its Activation. *Front Microbiol.* doi: 10.3389/fmicb.2021.761282.
191. Wen Zhou, Deng Xiao, Yueyang Zhao, Botao Tan, Zhimin Long, Lehua Yu, Guiqiong He. Enhanced Autolysosomal Function Ameliorates the Inflammatory Response Mediated by the NLRP3 Inflammasome in Alzheimer's Disease. *Front Aging Neurosci.* doi: 10.3389/fnagi.2021.629891.
192. Shuyuan Yang, Ying Wan, Na Wu, Lu Song, Zhihua Liu, Jiahao Zhao, Ying Liu, Zhenguo Liu, Jing Gan. L-3,4-Dihydroxyphenylalanine Recovers Circadian Rhythm Disturbances in the Rat Models of Parkinson's Disease by Regulating the D1R-ERK1/2-mTOR Pathway. *Front Aging Neurosci.* doi: 10.3389/fnagi.2021.719885.
193. Zhou Fang, Jian-Long Zou. Recombinant COL6 α 2 as a Self-Organization Factor That Triggers Orderly Nerve Regeneration Without Guidance Cues. *Front Cell Neurosci.* doi: 10.3389/fncel.2021.816781.
194. Yuxiang Liu, Taolin Chen, Mingyue Guo, Yu Li, Qian Zhang, Guixiang Tan, Li Yu, Yongjun Tan. FOXA2-Interacting FOXP2 Prevents Epithelial-Mesenchymal Transition of Breast Cancer Cells by Stimulating E-Cadherin and PHF2 Transcription. *Front Oncol.* doi: 10.3389/fonc.2021.605025.
195. Ke-Sai Hou, Lin-Lin Wang, Hong-Bo Wang, Feng-Hua Fu, Long-Chuan Yu. Role of Calcitonin Gene-Related Peptide in Nociceptive Modulation in Anterior Cingulate Cortex of Naïve Rats and Rats With Inflammatory Pain. *Front Pharmacol.* doi: 10.3389/fphar.2020.00928.
196. Nannan Lan, Yongxin Liu, Zhaodong Juan, Rui Zhang, Baoyu Ma, Keliang Xie, Lina Sun, Hao Feng, Meng Sun, Jianfeng Liu. The TSPO-specific Ligand PK11195 Protects Against LPS-Induced Cognitive Dysfunction by Inhibiting Cellular Autophagy. *Front Pharmacol.* doi: 10.3389/fphar.2020.615543.
197. Xin Wang, Rui Ren, Zehui Xu, Haidi Huang, Wanglin Jiang, Jinbo Ma.

- Tirbanibulin Attenuates Pulmonary Fibrosis by Modulating Src/STAT3 Signaling. Front Pharmacol. doi: 10.3389/fphar.2021.693906.
198. Huicun Zhang, Xiang Gao, Pengmin Chen, Hongbing Wang. Protective Effects of Tiaoganquzhi Decoction in Treating inflammatory Injury of Nonalcoholic Fatty liver Disease by Promoting CGI-58 and Inhibiting Expression of NLRP3 Inflammasome. Front Pharmacol. doi: 10.3389/fphar.2022.851267.
199. Hui Wang, Shaoqiong Liu, Jun Li, Liyuan Wang, Xiaojuan Wang, Jingpeng Zhao, Hongchao Jiao, Hai Lin. 5-Hydroxytryptophan Suppresses the Abdominal Fat Deposit and Is Beneficial to the Intestinal Immune Function in Broilers. Front Physiol. doi: 10.3389/fphys.2020.00655.
200. Sheng Li, Zhi Wang, Jing Wen Yao, Hong Chao Jiao, Xiao Juan Wang, Hai Lin, Jing Peng Zhao. Reduced PGC-1 β protein expression may underlie corticosterone inhibition of mitochondrial biogenesis and oxidative phosphorylation in chicken muscles. Front Physiol. doi: 10.3389/fphys.2022.989547.
201. Xiujing Dou, Di Yan, Siqi Liu, Lujia Gao, Anshan Shan. Thymol Alleviates LPS-Induced Liver Inflammation and Apoptosis by Inhibiting NLRP3 Inflammasome Activation and the AMPK-mTOR-Autophagy Pathway. Nutrients. doi: 10.3390/nu14142809.
202. Yu Wang, Xu Bai, Bo Hu, Maochen Xing, Qi Cao, Aiguo Ji, Shuliang Song. Transport Mechanisms of Polymannuronic Acid and Polygaluronic Acid Across Caco-2 Cell Monolayers. Pharmaceutics. doi: 10.3390/pharmaceutics12020167.
203. Yanjie Wang, Ping Zhang, Jingyu Zhang, Tie Hong. Bisdemethoxycurcumin attenuates OVA-induced food allergy by inhibiting the MAPK and NF- κ B signaling pathways. Exp Ther Med. doi: 10.3892/etm.2022.11328.
204. Hao Niu, Yiwei Huang, Li Yan, Li Zhang, Mengnan Zhao, Tao Lu, Xiaodong Yang, Zhengcong Chen, Cheng Zhan, Yu Shi, Qun Wang. Knockdown of SMAD3 inhibits the growth and enhances the radiosensitivity of lung adenocarcinoma via p21 in vitro and in vivo. Int J Biol Sci. doi: 10.7150/ijbs.40173.
205. Lu Xue, Weiwei He, Zhigang Wang, Hongsai Chen, Zhaoyan Wang, Hao Wu. Characterization of a newly established schwannoma cell line from a sporadic vestibular schwannoma patient. Am J Transl Res.

Version 2024.03.12