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NAC (抗氧化剂)

产品编号	产品名称	包装
S0077	NAC (抗氧化剂)	2g

产品简介:

- NAC即N-acetyl-L-cysteine, 也称LNAC, 中文名为N-乙酰半胱氨酸, 是一种常用的抗氧化剂。有报道可以抑制神经细胞的凋亡, 但可以诱导平滑肌细胞凋亡。可以抑制HIV复制。
- NAC为接近白色的粉末, 分子量163.19, 分子式为C₅H₉NO₃S, 纯度大于99%。
- 溶解于水, 加热后在水中的溶解度可以达到100mg/ml。

包装清单:

产品编号	产品名称	包装
S0077	NAC (抗氧化剂)	2g
—	说明书	1份

保存条件:

4°C保存, 两年有效。

注意事项:

- 如果配制成溶液, 分装后-20°C保存, 三个月有效。
- 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。

使用本产品的文献:

1. Li JJ, Tang Q, Li Y, Hu BR, Ming ZY, Fu Q, Qian JQ, Xiang JZ. Role of oxidative stress in the apoptosis of hepatocellular carcinoma induced by combination of arsenic trioxide and ascorbic acid. *Acta Pharmacol Sin* 2006 Aug;27(8):1078-84.
2. Gao MQ, Guo SB, Chen XH, Du W, Wang CB. Molecular mechanisms of polypeptide from *Chlamys farreri* protecting HaCaT cells from apoptosis induced by UVA plus UVB. *Acta Pharmacol Sin* 2007 Jul;28(7):1007-14.
3. Gao P, Guo RW, Chen JF, Chen Y, Wang H, Yu Y, Huang L. A meprin inhibitor suppresses atherosclerotic plaque formation in ApoE^{-/-} mice. *Atherosclerosis* 2009 Nov;207(1):84-92.
4. Zhang L, Lei W, Wang X, Tang Y, Song J. Glucocorticoid induces mesenchymal-to-epithelial transition and inhibits TGF-β1-induced epithelial-to-mesenchymal transition and cell migration. *FEBS Lett* 2010 Nov 19;584(22):4646-54.
5. Huang D, Wang Y, Wang L, Zhang F, Deng S, Wang R, Zhang Y, Huang K. Poly(ADP-ribose) polymerase 1 is indispensable for transforming growth factor-β induced Smad3 activation in vascular smooth muscle cell. *PLoS One* 2011;6(10):e27123.
6. Wang Y, Wei Y, Zhang H, Shi Y, Li Y, Li R. Arsenic trioxide induces apoptosis of p53 null osteosarcoma MG63 cells through the inhibition of catalase. *Med Oncol* 2012 Jun;29(2):1328-34.
7. Song J, Shu L, Zhang Z, Tan X, Sun E, Jin X, Chen Y, Jia X. Reactive oxygen species-mediated mitochondrial pathway is involved in Baohuoside I-induced apoptosis in human non-small cell lung cancer. *CHEM-BIOL INTERACT* 2012 Jul 30;199(1):9-17.
8. Chen X, Qiao H, Liu T, Yang Z, Xu L, Xu Y, Ge HM, Tan RX, Li E. Inhibition of herpes simplex virus infection by oligomeric stilbenoids through ROS generation. *ANTIVIR RES* 2012 Jul;95(1):30-6.
9. Xu HL, Yu XF, Qu SC, Qu XR, Jiang YF, Sui da Y. Juglone, from *Juglans mandshruica* Maxim, inhibits growth and induces apoptosis in human leukemia cell HL-60 through a reactive oxygen species-dependent mechanism. *Food Chem Toxicol* 2012 Mar;50(3-4):590-6.
10. Lv Y, Fang M, Zheng J, Yang B, Li H, Xiuzigao Z, Song W, Chen Y, Cao W. Low-intensity ultrasound combined with 5-aminolevulinic acid administration in the treatment of human tongue squamous carcinoma. *CELL PHYSIOL BIOCHEM* 2012;30(2):321-33.
11. Chen X, Ren F, Hesketh J, Shi X, Li J, Gan F, Huang K. Reactive oxygen species regulate the replication of porcine circovirus type 2 via NF-κB pathway. *Virology* 2012 Apr 25;426(1):66-72.
12. Wang Y, Wang L, Zhang F, Zhang C, Deng S, Wang R, Zhang Y, Huang D, Huang K. Inhibition of PARP prevents angiotensin II-induced aortic fibrosis in rats. *Int J Cardiol* 2013 Sep;167(5):2285-93.
13. Zhao L, Zhang W, Chen M, Zhang J, Zhang M, Dai K. Wang Aspirin Induces platelet apoptosis. *Platelets* 2013;24(8):637-42.
14. Liu H, Yang LX, Guo RW, Zhu GF, Shi YK, Wang XM, Qi F, Guo CM, Ye JS, Yang ZH, Liang X. Functional blockage of EMMPRIN ameliorates atherosclerosis in apolipoprotein E-deficient mice. *Int J Cardiol* 2013 Oct 9;168(4):3248-53.
15. Shi K, Wang D, Cao X, Ge Y. Endoplasmic reticulum stress signaling is involved in mitomycin C (MMC)-induced apoptosis in human fibroblasts via PERK pathway. *PLoS One* 2013;8(3):e59330.
16. Zhao S, Xiong Z, Mao X, Meng D, Lei Q, Li Y, Deng P, Chen M, Tu M, Lu X, Yang G, He G. Atmospheric pressure room temperature plasma jets facilitate oxidative and nitrate stress and lead to endoplasmic reticulum stress dependent apoptosis in HepG2 cells. *PLoS One* 2013 Aug 27;8(8):e73665.
17. Peng H, Yuan X, Shi R, Wei X, Ren S, Yan C, Ding Y, Lin Y, Fan D, Yang M, Zhang Y, Xiong D. PHII-7 inhibits cell growth and induces apoptosis in leukemia cell line

- K562 as well as its MDR- counterpart K562/A02 through producing reactive oxygen species. *Eur J Pharmacol* 2013 Oct 15;718(1-3):459-68.
18. Lu W, Fu Z, Wang H, Feng J, Wei J, Guo J. Peroxiredoxin 2 knockdown by RNA interference inhibits the growth of colorectal cancer cells by downregulating Wnt/ β -catenin signaling. *Cancer Lett* 2014 Feb 28;343(2):190-9.
 19. Lu M, Sun L, Zhou J, Yang J. Dihydroartemisinin induces apoptosis in colorectal cancer cells through the mitochondria-dependent pathway. *TUMOR BIOL* 2014 Jun;35(6):5307-14.
 20. Luo B, Li B, Wang W, Liu X, Xia Y, Zhang C, Zhang M, Zhang Y, An F. NLRP3 gene silencing ameliorates diabetic cardiomyopathy in a type 2 diabetes rat model. *PLoS One* 2014 Aug 19;9(8):e104771.
 21. Rehman K, Fu YJ, Zhang YF, Wang QQ, Wu B, Wu Y, Zhou XY, Sun WH, Sun TF, Naranmandura H. Trivalent methylated arsenic metabolites induce apoptosis in human myeloid leukemic HL-60 cells through generation of reactive oxygen species. *Metallomics* 2014 Aug;6(8):1502-12.
 22. Ma Y, Li R, Zhang Y, Zhou L, Dai Y. Knockdown of peroxiredoxin 5 inhibits the growth of osteoarthritic chondrocytes via upregulating Wnt/ β -catenin signaling. *FREE RADICAL BIO MED* 2014 Nov;76:251-60.
 23. Song L, Zhao J, Jin X, Li Z, Newton IP, Liu W, Xiao H, Zhao M. The organochlorine p,p'-dichlorodiphenyltrichloroethane induces colorectal cancer growth through Wnt/ β -catenin signaling. *Toxicol Lett* 2014 Aug 17;229(1):284-91.
 24. Liu W, Peng Y, Yin Y, Zhou Z, Zhou W, Dai Y. The involvement of NADPH oxidase-mediated ROS in cytokine secretion from macrophages induced by *Mycobacterium tuberculosis* ESAT-6. *Inflammation* 2014 Jun;37(3):880-92.
 25. Wang Y, Fang W, Huang Y, Hu F, Ying Q, Yang W, Xiong B. Reduction of selenium-binding protein 1 sensitizes cancer cells to selenite via elevating extracellular glutathione: a novel mechanism of cancer-specific cytotoxicity of selenite. *FREE RADICAL BIO MED* 2015 Feb;79:186-96.
 26. Xing Y, Bao W, Fan X, Liu K, Li X, Xi T. A novel oxaliplatin derivative, Ht-2, triggers mitochondrion-dependent apoptosis in human colon cancer cells. *Apoptosis* 2015 Jan;20(1):83-91.
 27. Peng H, Yuan X, Luo S, Li F, Wei X, Ye Z, Xiong D. Reactive oxygen species contribute to TRAIL receptors upregulation; the mechanism for PH II-7 augmenting TRAIL induced apoptosis in leukemia cells. *Eur J Pharmacol* 2015 Jan 5;746:344-52.
 28. Wei Z, Guo H, Liu Z, Zhang X, Liu Q, Qian Y, Gong Y, Shao C. CUL4B impedes stress-induced cellular senescence by dampening a p53-reactive oxygen species positive feedback loop. *FREE RADICAL BIO MED* 2015 Feb;79:1-13.
 29. Ma YC, Su N, Shi XJ, Zhao W, Ke Y, Zi X, Zhao NM, Qin YH, Zhao HW, Liu HM. Jaridoin-induced G2/M phase arrest in human esophageal cancer cells is caused by reactive oxygen species-dependent Cdc2-tyr15 phosphorylation via ATM-Chk1/2-Cdc25C pathway. *TOXICOL APPL PHARM* 2015 Jan 15;282(2):227-36.
 30. Yang H, Xiong J, Luo W, Yang J, Xi T. 8-Methoxypsoralen Induces Intrinsic Apoptosis in HepG2 Cells: Involvement of Reactive Oxygen Species Generation and ERK1/2 Pathway Inhibition. *CELL PHYSIOL BIOCHEM* 2015;37(1):361-74.
 31. Zhou Y, Wei L, Zhang H, Dai Q, Li Z, Yu B, Guo Q, Lu N. FV-429 Induced Apoptosis Through ROS-Mediated ERK2 Nuclear Translocation and p53 Activation in Gastric Cancer Cells. *J Cell Biochem* 2015 Aug;116(8):1624-37.
 32. Zhang J, Song J, Wu D, Wang J, Dong W. Hesperetin induces the apoptosis of hepatocellular carcinoma cells via mitochondrial pathway mediated by the increased intracellular reactive oxygen species, ATP and calcium. *Med Oncol* 2015 Apr;32(4):101.
 33. Zhang J, Wu D, Vikash, Song J, Wang J, Yi J, Dong W. Hesperetin Induces the Apoptosis of Gastric Cancer Cells via Activating Mitochondrial Pathway by Increasing Reactive Oxygen Species. *DIGEST DIS SCI* 2015 Oct;60(10):2985-95.
 34. Chen JW, Ni BB, Zheng XF, Li B, Jiang SD, Jiang LS. Hypoxia facilitates the survival of nucleus pulposus cells in serum deprivation by down-regulating excessive autophagy through restricting ROS generation. *INT J BIOCHEM CELL B* 2015 Feb;59:1-10.
 35. Wu J, Xie H. Effects of titanium dioxide nanoparticles on α -synuclein aggregation and the ubiquitin-proteasome system in dopaminergic neurons. *ARTIF CELL NANOMED B* 2016;44(2):690-4.
 36. Wu D, Yang X, Zheng T, Xing S, Wang J, Chi J, Bian F, Li W, Xu G, Bai X, Wu G, Jin S. A Novel Mechanism of Action for Salidroside to Alleviate Diabetic Albuminuria: Effects on Albumin Transcytosis across Glomerular Endothelial Cells. *AM J PHYSIOL-ENDOC M* 2016 Feb 1;310(3):E225-37.
 37. Wang X, Wang N, Li H, Liu M, Cao F, Yu X, Zhang J10, Tan Y1, Xiang L, Feng Y. Up-Regulation of PAI-1 and Down-Regulation of uPA Are Involved in Suppression of Invasiveness and Motility of Hepatocellular Carcinoma Cells by a Natural Compound Berberine. *Int J Mol Sci* 2016 Apr 16;17(4):577.
 38. Lu Y, Xu S, Chen H, He M, Deng Y, Cao Z, Pi H, Chen C, Li M, Ma Q, Gao P, Ji Y, Zhang L, Yu Z, Zhou Z. CdSe/ZnS quantum dots induce hepatocyte pyroptosis and liver inflammation via NLRP3 inflammasome activation. *Biomaterials* 2016 Jun;90:27-39.
 39. Feng B, Ye C, Qiu L, Chen L, Fu Y, Sun W. Mitochondrial ROS Release and Subsequent Akt Activation Potentially Mediated the Anti-Apoptotic Effect of a 50-Hz Magnetic Field on FL Cells. *CELL PHYSIOL BIOCHEM* 2016;38(6):2489-99.
 40. Zhou BR, Zhang LC, Permatasari F, Liu J, Xu Y, Luo D. ALA-PDT elicits oxidative damage and apoptosis in UVB-induced premature senescence of human skin fibroblasts. *PHOTODIAGN PHOTODYN* 2016 Jun;14:47-56.
 41. Cai Y, Yang Q, Liao M, Wang H, Zhang C, Nambi S, Wang W, Zhang M, Wu J, Deng G, Deng Q, Liu H, Zhou B, Jin Q, Feng CG, Sassetti CM, Wang F, Chen X. xCT increases tuberculosis susceptibility by regulating antimicrobial function and inflammation. *ONCOTARGET* 2016 May 24;7(21):31001-13.
 42. Zhu L, Yuan C, Zhang D, Ma Y, Ding X, Zhu G. BHV-1 induced oxidative stress contributes to mitochondrial dysfunction in MDBK cells. *Vet Res* 2016 Mar 22;47:47.
 43. Lai JM, Zhang X, Liu FF, Yang R, Li SY, Zhu LB, Zou M, Cheng WH, Zhu JH. Redox-sensitive MAPK and Notch3 regulate fibroblast differentiation and activation: a dual role of ERK1/2. *ONCOTARGET* 2016 Jul 12;7(28):43731-43745.
 44. Yao J, Ma C, Gao W, Liang J, Liu C, Yang H, Yan Q, Wen Q. Fentanyl induces autophagy via activation of the ROS/MAPK pathway and reduces *Oncol Rep* 2016 Dec;36(6):3363-3370.
 45. Wang X, Feng Z, Li J, Chen L, Tang W. High glucose induces autophagy of MC3T3-E1 cells via ROS-AKT-mTOR axis. *Mol Cell Endocrinol* 2016 Jul 5;429:62-72.
 46. Lv Z, Li C, Shao Y, Zhang W, Wang Z, Wang H. Programmed cell death 4 in bacterially-challenged *Apostichopus japonicus*: Molecular cloning, expression analysis and functional characterization. *Mol Immunol* 2016 Jul;75:84-91.
 47. Zhou L, Jiang L, Xu M, Liu Q, Gao N, Li P, Liu EH. Miltirone exhibits antileukemic activity by ROS-mediated endoplasmic reticulum stress and mitochondrial dysfunction pathways. *SCI REP-UK* 2016 Feb 5;6:20585.
 48. Zhang X, Wang YN, Zhu JJ, Liu XX, You H, Gong MY, Zou M, Cheng WH, Zhu JH. N-acetylcysteine negatively regulates Notch3 and its malignant signaling. *ONCOTARGET* 2016 May 24;7(21):30855-66.
 49. Xu C, Wu F, Mao C, Wang X, Zheng T, Bu L, Mou X, Zhou Y, Yuan G, Wang S, Xiao Y. Excess iodine promotes apoptosis of thyroid follicular epithelial cells by inducing autophagy suppression and is associated with Hashimoto thyroiditis disease. *J Autoimmun* 2016 Dec;75:50-57.
 50. Zhu D, Shen Z, Liu J, Chen J, Liu Y, Hu C, Li Z, Li Y. The ROS-mediated activation of STAT-3/VEGF signaling is involved in the 27-hydroxycholesterol-induced angiogenesis in human breast cancer cells. *Toxicol Lett* 2016 Dec 15;264:79-86.
 51. Zhang B, Fan J, Zhang X, Shen W, Cao Z, Yang P, Xu Z, Ju D. Targeting asparagine and autophagy for pulmonary adenocarcinoma therapy. *APPL MICROBIOL*

- BIOT 2016 Nov;100(21):9145-9161.
52. Tu P, Huang Q, Ou Y, Du X, Li K, Tao Y, Yin H. Aloe-emodin-mediated photodynamic therapy induces autophagy and apoptosis. *Oncol Rep* 2016 Jun;35(6):3209-15.
 53. Li X, Ye F, Li L, Chang W, Wu X, Chen J. The role of HO-1 in protection against lead-induced neurotoxicity. *Neurotoxicology* 2016 Jan;52:1-11.
 54. Chen J, Lai J, Yang L, Ruan G, Chaugai S, Ning Q, Chen C, Wang DW. Trimetazidine prevents macrophage-mediated septic myocardial dysfunction via activation of the histone deacetylase sirtuin 1. *BRIT J PHARMACOL* 2016 Feb;173(3):545-61.
 55. Ma G, Luo W, Lu J, Ma DL, Leung CH, Wang Y, Chen X. Cucurbitacin E induces caspase-dependent apoptosis and protective autophagy mediated by ROS in lung cancer cells. *CHEM-BIOL INTERACT* 2016 Jun 25;253:1-9.
 56. Zhou XY, Zhang T, Ren L, Wu JJ, Wang W, Liu JX. Copper elevated embryonic hemoglobin through reactive oxygen species during zebrafish erythropoiesis. *Aquat Toxicol* 2016 Jun;175:1-11.
 57. Niu Y, Sun W, Lu JJ, Ma DL, Leung CH, Pei L, Chen X. PTEN Activation by DNA Damage Induces Protective Autophagy in Response to Cucurbitacin B in Hepatocellular Carcinoma Cells. *Oxid Med Cell Longev* 2016;2016:4313204.
 58. Jiang S, Fan J, Wang Q, Ju D, Feng M, Li J, Guan ZB, An D, Wang X, Ye L. Diosgenin induces ROS-dependent autophagy and cytotoxicity via mTOR signaling pathway in chronic myeloid leukemia cells. *Phytomedicine* 2016 Mar 15;23(3):243-52.
 59. Dai C, Tang S, Velkov T, Xiao X. Colistin-Induced Apoptosis of Neuroblastoma-2a Cells Involves the Generation of Reactive Oxygen Species, Mitochondrial Dysfunction, and Autophagy. *Mol Neurobiol* 2016 Sep;53(7):4685-700.
 60. Wang J, Tan X, Yang Q, Zeng X, Zhou Y, Luo W, Lin X, Song L, Cai J, Wang T, Wu X. Inhibition of autophagy promotes apoptosis and enhances anticancer efficacy of adriamycin via augmented ROS generation in prostate cancer cells. *INT J BIOCHEM CELL B* 2016 Aug;77(Pt A):80-90.
 61. Lan AP, Xiong XJ, Chen J, Wang X, Chai ZF, Hu Y. AMPK Inhibition Enhances the Neurotoxicity of Cu(II) in SH-SY5Y Cells. *Neurotox Res* 2016 Oct;30(3):499-509.
 62. Zhu Y, Ye T, Yu X, Lei Q, Yang F, Xia Y, Song X, Liu L, Deng H, Gao T, Peng C, Zuo W, Xiong Y, Zhang L, Wang N, Zhao L, Xie Y, Yu L, Wei Y. Nifuroxazide exerts potent anti-tumor and anti-metastasis activity in melanoma. *SCI REP-UK* 2016 Feb 2;6:20253.
 63. Zhang L, Cheng X, Gao Y, Bao J, Guan H, Lu R, Yu H, Xu Q, Sun Y. Induction of ROS-independent DNA damage by curcumin leads to G2/M cell cycle arrest and apoptosis in human papillary thyroid carcinoma BCPAP cells. *Food Funct* 2016 Jan;7(1):315-25.
 64. Wang C, Li T, Tang S, Zhao D, Zhang C, Zhang S, Deng S, Zhou Y, Xiao X. Thapsigargin induces apoptosis when autophagy is inhibited in HepG2 cells and both processes are regulated by ROS-dependent pathway. *ENVIRON TOXICOL CHEM* 2016 Jan;41:167-79.
 65. Zhang F, Ren X, Zhao M, Zhou B, Han Y. Angiotensin-(1-7) abrogates angiotensin II-induced proliferation, migration and inflammation in VSMCs through inactivation of ROS-mediated PI3K/Akt and MAPK/ERK signaling pathways. *SCI REP-UK* 2016 Sep 30;6:34621.
 66. Zhang SY, Li XB, Hou SG, Sun Y, Shi YR, Lin SS. Cedrol induces autophagy and apoptotic cell death in A549 non-small cell lung carcinoma cells through the PI3K/Akt signaling pathway, the loss of mitochondrial transmembrane potential and the generation of ROS. *Int J Mol Med* 2016 Jul;38(1):291-9.
 67. Zhang J, Jiang H, Xie L, Hu J, Li L, Yang M, Cheng L, Liu B, Qian X. Antitumor effect of manumycin in colorectal cancer cells by increasing the reactive oxygen species production and blocking PI3K-AKT pathway. *ONCOTARGETS THER* 2016 May 24;9:2885-95.
 68. Quan YY, Qin GQ, Huang H, Liu YH, Wang XP, Chen TS. Dominant roles of Fenton reaction in sodium nitroprusside-induced chondrocyte apoptosis. *FREE RADICAL BIO MED* 2016 May;94:135-44.
 69. Zeng Q, Wang Q, Chen X, Xia K, Tang J, Zhou X, Cheng Y, Chen Y, Huang L, Xiang H, Cao K, Zhou J. Analysis of lncRNAs expression in UVB-induced stress responses of melanocytes. *J Dermatol Sci* 2016 Jan;81(1):53-60.
 70. Sun HJ, Zhao MX, Liu TY, Ren XS, Chen Q, Li YH, Kang YM, Zhu GQ. Salusin-β induces foam cell formation and monocyte adhesion in human vascular smooth muscle cells via miR155/NOX2/NFκB pathway. *SCI REP-UK* 2016 Mar 23;6:23596.
 71. Guo L, Lv G, Qiu L, Yang H, Zhang L, Yu H, Zou M, Lin J. Insights into anticancer activity and mechanism of action of a ruthenium(II) complex. *Eur J Pharmacol* 2016 Sep 5;786:60-71.
 72. Ye TH, Yang FF, Zhu YX, Li YL, Lei Q, Song XJ, Xia Y, Xiong Y, Zhang LD, Wang NY, Zhao LF, Gou HF, Xie YM, Yang SY, Yu LT, Yang L, Wei YQ. Inhibition of Stat3 signaling pathway by nifuroxazide improves antitumor immunity and impairs colorectal carcinoma metastasis. *Cell Death Dis* 2017 Jan 5;8(1):e2534.
 73. Du X, Shi Z, Peng Z, Zhao C, Zhang Y, Wang Z, Li X, Liu G, Li X. Acetoacetate Induces Hepatocytes Apoptosis by the ROS-Mediated MAPKs Pathway in Ketotic Cows. *J Cell Physiol* 2017 Jan 6. doi: 10.1002/jcp.25773. [Epub ahead of print]
 74. Wang Z, Liao K, Zuo W, Liu X, Qiu Z, Gong Z, Liu C, Zeng Q, Qian Y, Jiang L, Bu Y, Hong S, Hu G. Depletion of NFB1/MDC1 Induces Apoptosis in Nasopharyngeal Carcinoma Cells Through the p53-ROS-Mitochondrial Pathway. *Oncol Res* 2017 Jan 2;25(1):123-136.
 75. Wang Y, Yu RY, Zhang J, Zhang WX, Huang ZH, Hu HF, Li YL, Li B, He QY. Inhibition of Nrf2 enhances the anticancer effect of 6-O-angeloylenol in lung adenocarcinoma. *Biochem Pharmacol* 2017 Jan 16. pii:S0006-2952(17)30021-7.
 76. Zhou W, Xu G, Wang Y, Xu Z, Liu X, Xu X, Ren G, Tian K. Oxidative stress induced autophagy in cancer associated fibroblast enhances proliferation and metabolism of colorectal cancer cells. *Cell Cycle* 2017 Jan 2;16(1):73-81.
 77. Zuo D, Zhou Z, Wang H, Zhang T, Zang J, Yin F, Sun W, Chen J, Duan L, Xu J, Wang Z, Wang C, Lin B, Fu Z, Liao Y, Li S, Sun M, Hua Y, Zheng L, Cai Z. Alternol, a natural compound, exerts an anti-tumor effect on osteosarcoma by modulating of STAT3 and ROS/MAPK signalling pathways. *J Cell Mol Med* 2017 Feb;21(2):208-221.
 78. Liu JR, Xu GM, Shi XM, Zhang GJ. Low temperature plasma promoting fibroblast proliferation by activating the NF-κB pathway and increasing cyclin D1 expression. *SCI REP-UK* 2017 Sep 15;7(1):11698.
 79. Yu N, Zhu H, Yang Y, Tao Y, Tan F, Pei Q, Zhou Y, Song X, Tan Q, Pei H. Combination of Fe/Cu-chelators and docosahexaenoic acid: an exploration for the treatment of colorectal cancer. *ONCOTARGET* 2017 May 11;8(31):51478-51491.
 80. Zou J, Zhang Y, Sun J, Wang X, Tu H, Geng S, Liu R, Chen Y, Bi Z. Deoxyelephantopin Induces Reactive Oxygen Species-Mediated Apoptosis and Autophagy in Human Osteosarcoma Cells. *CELL PHYSIOL BIOCHEM* 2017;42(5):1812-1821.
 81. Jia Y, Wang HD, Wang Q, Ding H, Wu HM, Pan H. GSH depletion and consequent AKT inhibition contribute to the Nrf2 knockdown-induced decrease in proliferation in glioblastoma U251 cells. *Oncol Rep* 2017 Apr;37(4):2252-2260.
 82. Li P, Hou G, Zhang R, Gan Y, Xu Y, Song L, Zhou Q. High-magnitude compression accelerates the premature senescence of nucleus pulposus cells via the p38 MAPK-ROS pathway. *Arthritis Res Ther* 2017 Sep 18;19(1):209.
 83. Mehmood T, Maryam A, Tian X, Khan M, Ma T. Santamarine Inhibits NF-κB and STAT3 Activation and Induces Apoptosis in HepG2 Liver Cancer Cells via Oxidative Stress. *J Cancer* 2017 Oct 17;8(18):3707-3717.
 84. Mehmood T, Maryam A, Zhang H, Li Y, Khan M, Ma T. Deoxyelephantopin induces apoptosis in HepG2 cells via oxidative stress, NF-κB inhibition and mitochondrial dysfunction. *Biofactors* 2017 Jan 2;43(1):63-72.
 85. Liang W, Cui J, Zhang K, Xi H, Cai A, Li J, Gao Y, Hu C, Liu Y, Lu Y, Wang N, Wu X, Wei B, Chen L. Shikonin induces ROS-based mitochondria-mediated apoptosis in colon cancer. *ONCOTARGET* 2017 Nov 17;8(65):109094-109106.
 86. Li Y, Qin Y, Yang C, Zhang H, Li Y, Wu B, Huang J, Zhou X, Huang B, Yang K, Wu G. Cardamonin induces ROS-mediated G2/M phase arrest and apoptosis through

- inhibition of NF- κ B pathway in nasopharyngeal carcinoma. *Cell Death Dis* 2017 Aug 31;8(8):e3024.
87. Chen Q, Ye L, Fan J, Zhang X, Wang H, Liao S, Song P, Wang Z, Wang S, Li Y, Luan J, Wang Y, Chen W, Zai W, Yang P, Cao Z, Ju D. Autophagy suppression potentiates the anti-glioblastoma effect of asparaginase in vitro and in vivo. *ONCOTARGET* 2017 Jul 20;8(53):91052-91066.
 88. Liu WB, Xie F, Sun HQ, Meng M, Zhu ZY. Anti-tumor effect of polysaccharide from *Hirsutiella sinensis* on human non-small cell lung cancer and nude mice through intrinsic mitochondrial pathway. *Int J Biol Macromol* 2017 Jun;99:258-264.
 89. Liu L, Tu X, Shen YF, Chen WC, Zhu B, Wang GX. The replication of spring viraemia of carp virus can be regulated by reactive oxygen species and NF- κ B pathway. *FISH SHELLFISH IMMUN* 2017 Aug;67:211-217.
 90. Zhang J, Wang Y, Zhou Y, He QY. Jolkinolide B induces apoptosis of colorectal carcinoma through ROS-ER stress-Ca²⁺-mitochondria dependent pathway. *ONCOTARGET* 2017 Aug 9;8(53):91223-91237.
 91. Su X, He X, Ben Q, Wang W, Song H, Ye Q, Zang Y, Li W, Chen P, Yao W, Yuan Y. Effect of p53 on pancreatic cancer-glucose tolerance abnormalities by regulating transglutaminase 2 in resistance to glucose metabolic stress. *ONCOTARGET* 2017 Jul 19;8(43):74299-74311.
 92. Wu H, Jiang K, Yin N, Ma X, Zhao G, Qiu C, Deng G. Thymol mitigates lipopolysaccharide-induced endometritis by regulating the TLR4 and ROS-mediated NF- κ B signaling pathways. *ONCOTARGET* 2017 Mar 21;8(12):20042-20055.
 93. Pang N, Chen T, Deng X, Chen N, Li R, Ren M, Li Y, Luo M, Hao H, Wu J, Wang L. Polydatin Prevents Methylglyoxal-Induced Apoptosis through Reducing Oxidative Stress and Improving Mitochondrial Function in Human Umbilical Vein Endothelial Cells. *Oxid Med Cell Longev* 2017;2017:7180943.
 94. Dai X, Guo G, Zou P, Cui R, Chen W, Chen X, Yin C, He W, Vinothkumar R, Yang F, Zhang X, Liang G. (S)-crizotinib induces apoptosis in human non-small cell lung cancer cells by activating ROS independent of MTH1. *J EXP CLIN CANC RES* 2017 Sep 7;36(1):120.
 95. Ji Y, Li L, Tao Q, Zhang X, Luan J, Zhao S, Liu H, Ju D. Deprivation of asparagine triggers cytoprotective autophagy in laryngeal squamous cell carcinoma. *APPL MICROBIOL BIOT* 2017 Jun;101(12):4951-4961.
 96. Sun S, Zhang M, Yang Q, Shen Z, Chen J, Yu B, Wang H, Qu J, Pang D, Ren W, Ouyang H, Tang X. Resveratrol suppresses lipoprotein-associated phospholipase A2 expression by reducing oxidative stress in macrophages and animal models. *Mol Nutr Food Res* 2017 Oct;61(10).
 97. Xin W, Wang Q, Zhang D, Wang C. A new mechanism of inhibition of IL-1 β secretion by celastrol through the NLRP3 inflammasome pathway. *Eur J Pharmacol* 2017 Nov 5;814:240-247.
 98. Hou D, Xu G, Zhang C, Li B, Qin J, Hao X, Liu Q, Zhang X, Liu J, Wei J, Gong Y, Liu Z, Shao C. Berberine induces oxidative DNA damage and impairs homologous recombination repair in ovarian cancer cells to confer increased sensitivity to PARP inhibition. *Cell Death Dis* 2017 Oct 5;8(10):e3070.
 99. Zhao M, Xu WF, Shen HY, Shen PQ, Zhang J, Wang DD, Xu H, Wang H, Yan TT, Wang L, Hao HP, Wang GJ, Cao LJ. Comparison of bioactive components and pharmacological activities of ophiopogon japonicus extracts from different geographical origins. *J PHARMACEUT BIOMED* 2017 May 10;138:134-141.
 100. Huang P, Zhang YH, Zheng XW, Liu YJ, Zhang H, Fang L, Zhang YW, Yang C, Islam K, Wang C, Naranmandura H. Phenylarsine oxide (PAO) induces apoptosis in HepG2 cells via ROS-mediated mitochondria and ER-stress dependent signaling pathways. *Metallomics* 2017 Dec 1;9(12):1756-1764.
 101. Shen W, Zhang X, Fu X, Fan J, Luan J, Cao Z, Yang P, Xu Z, Ju D. A novel and promising therapeutic approach for NSCLC: recombinant human arginase alone or combined with autophagy inhibitor. *Cell Death Dis* 2017 Mar 30;8(3):e2720. doi: 10.1038/cddis.2017.137.
 102. Zhu Y, He H. Molecular response of mitochondria to a short-duration femtosecond-laser stimulation. *Biomed Opt Express* 2017 Oct 10;8(11):4965-4973.
 103. Shan M, Qin J, Jin F, Han X, Guan H, Li X, Zhang J, Zhang H, Wang Y. Autophagy suppresses isoprenaline-induced M2 macrophage polarization via the ROS/ERK and mTOR signaling pathway. *FREE RADICAL BIO MED* 2017 Sep;110:432-443.
 104. Zhao G, Jiang K, Wu H, Qiu C, Deng G, Peng X. Polydatin reduces *Staphylococcus aureus* lipoteichoic acid-induced injury by attenuating reactive oxygen species generation and TLR2-NF κ B signalling. *J Cell Mol Med* 2017 Nov;21(11):2796-2808.
 105. Liu X, Zhang X, Ding Y, Zhou W, Tao L, Lu P, Wang Y, Hu R. Nuclear Factor E2-Related Factor-2 Negatively Regulates NLRP3 Inflammasome Activity by Inhibiting Reactive Oxygen Species-Induced NLRP3 Priming. *ANTIOXID REDOX SIGN* 2017 Jan 1;26(1):28-43.
 106. Chen J, Lu WY, Zhao MF, Cao XL, Jiang YY, Jin X, Xu P, Yuan TT, Zhang YC, Chai X, Meng JX, Li Q, Xiao X, Mu J, Li DG, Qi AP. Reactive oxygen species mediated T lymphocyte abnormalities in an iron-overloaded mouse model and iron-overloaded patients with myelodysplastic syndromes. *Ann Hematol* 2017 Jul;96(7):1085-1095.
 107. Liu J, Liu Y, Chen J, Hu C, Teng M, Jiao K, Shen Z, Zhu D, Yue J, Li Z, Li Y. The ROS-mediated activation of IL-6/STAT3 signaling pathway is involved in the 27-hydroxycholesterol-induced cellular senescence in nerve cells. *Toxicol In Vitro* 2017 Dec;45(Pt 1):10-18.
 108. Che Y, Wang J, Yuan Z, Li Y, Lu Z, Zhang Z, Zhang J, Wan J, Sun H, Chen Z, Pu J, He J. TEMPORARY REMOVAL: The therapeutic effects of Longikaurin A, a natural ent-kauranoid, in esophageal squamous cell carcinoma depend on ROS accumulation and JNK/p38 MAPK activation. *Toxicol Lett* 2017 Oct 5;280:106-115.
 109. Zuo J, Dou DY, Wang HF, Zhu YH, Li Y, Luan JJ. Reactive oxygen species mediated NF- κ B/p38 feedback loop implicated in proliferation inhibition of HFLS-RA cells induced by 1,7-dihydroxy-3,4-dimethoxyxanthone. *Biomed Pharmacother* 2017 Oct;94:1002-1009.
 110. Jiang LB, Cao L, Ma YQ, Chen Q, Liang Y, Yuan FL, Li XL, Dong J, Chen N. TIGAR mediates the inhibitory role of hypoxia on ROS production and apoptosis in rat nucleus pulposus cells. *OSTEOARTHR CARTILAGE* 2018 Jan;26(1):138-148.
 111. Liu W, Zhao Z, Na Y, Meng C, Wang J, Bai R. Dexamethasone-induced production of reactive oxygen species promotes apoptosis via endoplasmic reticulum stress and autophagy in MC3T3-E1 cells. *Int J Mol Med* 2018 Apr;41(4):2028-2036.
 112. Dong W, Lv H, Guo K, Wang T, Ouyang Y, Jin M, Zhang Y. Classical Swine Fever Virus Infection and Its NS4A Protein Expression Induce IL-8 Production through MAVS Signaling Pathway in Swine Umbilical Vein Endothelial Cells. *Front Microbiol* 2018 Jan 12;8:2687.
 113. He X, Lai Q, Chen C, Li N, Sun F, Huang W, Zhang S, Yu Q, Yang P, Xiong F, Chen Z, Gong Q, Ren B, Weng J, Eizirik DL, Zhou Z, Wang CY. Both conditional ablation and overexpression of E2 SUMO-conjugating enzyme (UBC9) in mouse pancreatic beta cells result in impaired beta cell function. *Diabetologia* 2018 Apr;61(4):881-895.
 114. Qiu M, Shi F, Dai F, Song R, Wang S, You Y, Zhao B. A reactive oxygen species activation mechanism contributes to Sophoridine-induced apoptosis in rat liver BRL-3A cells. *J Ethnopharmacol* 2018 Mar 1;213:376-383.
 115. Zai W, Chen W, Luan J, Fan J, Zhang X, Wu Z, Ding T, Ju D, Liu H. Dihydroquercetin ameliorated acetaminophen-induced hepatic cytotoxicity via activating JAK2/STAT3 pathway and autophagy. *APPL MICROBIOL BIOT* 2018 Feb;102(3):1443-1453.
 116. Lu QB, Wan MY, Wang PY, Zhang CX, Xu DY, Liao X, Sun HJ. Chicoric acid prevents PDGF-BB-induced VSMC dedifferentiation, proliferation and migration by suppressing ROS/NF κ B/mTOR/P70S6K signaling cascade. *Redox Biol* 2018 Apr;14:656-668.
 117. Zheng BZ, Liu TD, Chen G, Zhang JX, Kang X. The effect of curcumin on cell adhesion of human esophageal cancer cell. *EUR REV MED PHARMACO* 2018 Jan;22(2):551-560.

118. Chen K, Dai H, Yuan J, Chen J, Lin L, Zhang W, Wang L, Zhang J, Li K, He Y. Optineurin-mediated mitophagy protects renal tubular epithelial cells against accelerated senescence in diabetic nephropathy. *Cell Death Dis* 2018 Jan 24;9(2):105.
119. Hu B, Zhang T, An HM, Zheng JL, Yan X, Huang XW. Herbal formula YGJDSJ inhibits anchorage-independent growth and induces anoikis in hepatocellular carcinoma Bel-7402 cells. *BMC COMPLEMENTARY ALTERNATIVE MEDICINE* 2018 Jan 16;18(1):17.
120. Lu Y, Kan H, Wang Y, Wang D, Wang X, Gao J, Zhu L. Asiatic acid ameliorates hepatic ischemia/reperfusion injury in rats via mitochondria-targeted protective mechanism. *TOXICOLOGICAL APPLIED PHARMACOLOGY* 2018 Jan 1;338:214-223.
121. Liu C, Shen GN, Luo YH, Piao XJ, Jiang XY, Meng LQ, Wang Y, Zhang Y, Wang JR, Wang H, Xu WT, Li JQ, Liu Y, Wu YQ, Sun HN, Han YH, Jin MH, Cui YD, Fang NZ, Jin CH. Novel 1,4-naphthoquinone derivatives induce apoptosis via ROS-mediated p38/MAPK, Akt and STAT3 signaling in human hepatoma Hep3B cells. *INTERNATIONAL JOURNAL OF BIOCHEMISTRY AND CELL BIOLOGY* 2018 Mar;96:9-19.
122. Zhang X, Wang Y, Velkov T, Tang S, Dai C. T-2 toxin-induced toxicity in neuroblastoma-2a cells involves the generation of reactive oxygen, mitochondrial dysfunction and inhibition of Nrf2/HO-1 pathway. *FOOD CHEM TOXICOLOGY* 2018 Feb 9;114:88-97.
123. Liu W, Zhao Z, Na Y, Meng C, Wang J, Bai R. Dexamethasone-induced production of reactive oxygen species promotes apoptosis via endoplasmic reticulum stress and autophagy in MC3T3-E1 cells. *INTERNATIONAL JOURNAL OF MOLECULAR MEDICINE* 2018 Apr;41(4):2028-2036.
124. Xu C, Shi Q, Zhang L, Zhao H. High molecular weight hyaluronan attenuates fine particulate matter-induced acute lung injury through inhibition of ROS-ASK1-p38/JNK-mediated epithelial apoptosis. *ENVIRONMENTAL TOXICOLOGY AND CHEMISTRY* 2018 Apr;59:190-198.
125. He X, Lai Q, Chen C, Li N, Sun F, Huang W, Zhang S, Yu Q, Yang P, Xiong F, Chen Z, Gong Q, Ren B, Weng J, Eizirik DL, Zhou Z, Wang CY. Both conditional ablation and overexpression of E2 SUMO-conjugating enzyme (UBC9) in mouse pancreatic beta cells result in impaired beta cell function. *DIABETOLOGIA* 2018 Apr;61(4):881-895.
126. Luan J, Zhang X, Wang S, Li Y, Fan J, Chen W, Zai W, Wang S, Wang Y, Chen M, Meng G, Ju D. NOD-Like Receptor Protein 3 Inflammasome-Dependent IL-1 β Accelerated ConA-Induced Hepatitis. *FRONTIERS IN IMMUNOLOGY* 2018 Apr 10;9:758.
127. Zhou Y, Que KT, Zhang Z, Yi ZJ, Zhao PX, You Y, Gong JP, Liu ZJ. Iron overloaded polarizes macrophage to proinflammation phenotype through ROS/acetyl-p53 pathway. *CANCER MEDICINE-USA* 2018 Aug;7(8):4012-4022.
128. Zhang Y, Zhang R, Sun H, Chen Q, Yu X, Zhang T, Yi M, Liu JX. Copper inhibits hatching of fish embryos via inducing reactive oxygen species and down-regulating Wnt signaling. *AQUATIC TOXICOLOGY* 2018 Dec;205:156-164.
129. Xu Z, Zhang Y, Ding J, Hu W, Tan C, Wang M, Tang J, Xu Y. miR-17-3p Downregulates Mitochondrial Antioxidant Enzymes and Enhances the Radiosensitivity of Prostate Cancer Cells. *MOL THERAPEUTIC NUCLEAR ACIDS* 2018 Dec 7;13:64-77.
130. Fan W, Lv Y, Ren S, Shao M, Shen T, Huang K, Zhou J, Yan L, Song S. Zearalenone (ZEA)-induced intestinal inflammation is mediated by the NLRP3 inflammasome. *CHEMOSPHERE* 2018 Jan;190:272-279.
131. Jiang LB, Cao L, Ma YQ, Chen Q, Liang Y, Yuan FL, Li XL, Dong J, Chen N. TIGAR mediates the inhibitory role of hypoxia on ROS production and apoptosis in rat nucleus pulposus cells. *OSTEOARTHRITIS CARTILAGE* 2018 Jan;26(1):138-148.
132. Chen K, Dai H, Yuan J, Chen J, Lin L, Zhang W, Wang L, Zhang J, Li K, He Y. Optineurin-mediated mitophagy protects renal tubular epithelial cells against accelerated senescence in diabetic nephropathy. *Cell Death Dis* 2018 Jan 24;9(2):105.
133. Zheng T, Yang X, Li W, Wang Q, Chen L, Wu D, Bian F, Xing S, Jin S. Salidroside Attenuates High-Fat Diet-Induced Nonalcoholic Fatty Liver Disease via AMPK-Dependent TXNIP/NLRP3 Pathway. *OXIDATIVE MEDICINE AND CELLULAR LONGEVITY* 2018 Jul 22;2018:8597897.
134. Wen J, Wang Y, Gao C, Zhang G, You Q, Zhang W, Zhang Z, Wang S, Peng G, Shen L. Helicobacter pylori infection promotes Aquaporin 3 expression via the ROS-HIF-1 α -AQP3-ROS loop in stomach mucosa: a potential novel mechanism for cancer pathogenesis. *ONCOGENE* 2018 Jun;37(26):3549-3561.
135. Zhu J, Sun Y, Lu Y, Jiang X, Ma B, Yu L, Zhang J, Dong X, Zhang Q. Glucocorticoid exerts anticancer effect on osteosarcoma by inhibiting GLI1 nuclear translocation via regulating PI3K/Akt pathway. *Cell Death Dis* 2018 Jun 13;9(6):708.
136. Wu W, Yan L, Chen S, Li Q, Gu Z, Xu H, Yin ZQ. Investigating oxidation state-induced toxicity of PEGylated graphene oxide in ocular tissue using gene expression profiles. *Nanotoxicology* 2018 Jun 9:1-17.
137. Gao R, Ma J, Wen Z, Yang P, Zhao J, Xue M, Chen Y, Aldarouish M, Hu HM, Zhu XJ, Pan N, Wang LX. Tumor cell-released autophagosomes (TRAP) enhance apoptosis and immunosuppressive functions of neutrophils. *ONCOIMMUNOLOGY* 2018 Mar 6;7(6):e1438108.
138. Gu LL, Shen ZL, Li YL, Bao YQ, Lu H. Oxymatrine Causes Hepatotoxicity by Promoting the Phosphorylation of JNK and Induction of Endoplasmic Reticulum Stress Mediated by ROS in LO2 Cells. *MOL CELLS* 2018 May 31;41(5):401-412.
139. Zhao L, Yan M, Wang X, Xiong G, Wu C, Wang Z, Zhou Z, Chang X. Modification of Wnt signaling pathway on paraquat-induced inhibition of neural progenitor cell proliferation. *FOOD CHEM TOXICOLOGY* 2018 Nov;121:311-325.
140. Ma J, Li X. Insight into the negative impact of ionic liquid: A cytotoxicity mechanism of 1-methyl-3-octylimidazolium bromide. *ENVIRONMENTAL POLLUTION* 2018 Nov;242(Pt B):1337-1345.
141. Zu C, Qin G, Yang C, Liu N, He A, Zhang M, Zheng X. Low dose Emodin induces tumor senescence for boosting breast cancer chemotherapy via silencing NRARP. *BIOCHEMICAL BIOPHYSICAL RESEARCH COMMUNICATIONS* 2018 Nov 10;505(4):973-978.
142. Deng L, Gao X, Liu B, He X, Xu J, Qiang J, Wu Q, Liu SNMT1 inhibition modulates breast cancer progression through stress-triggered JNK pathway. *Cell Death Dis* 2018 Nov 16;9(12):1143.
143. Liu N, Wang KS, Qi M, Zhou YJ, Zeng GY, Tao J, Zhou JD, Zhang JL, Chen X, Peng C. Vitexin compound 1, a novel extraction from a Chinese herb, suppresses melanoma cell growth through DNA damage by increasing ROS levels. *J EXP CLIN CANC RES* 2018 Nov 6;37(1):269.
144. Kang P, Zhang W, Chen X, Yi X, Song P, Chang Y, Zhang S, Gao T, Li C, Li S. TRPM2 mediates mitochondria-dependent apoptosis of melanocytes under oxidative stress. *FREE RADICAL BIO MED* 2018 Oct;126:259-268.
145. 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.
146. Li X, Li C, Tang Y, Huang Y, Cheng Q, Huang X, Zhao F, Hao C, Feng D, Xu J, Han J, Tang S, Liu W, Yue S, Luo Z. NMDA receptor activation inhibits the antifibrotic effect of BM-MSCs on bleomycin-induced pulmonary fibrosis. *AM J PHYSIOL-LUNG C* 2018 Sep 1;315(3):L404-L421.
147. Chen K, Feng L, Hu W, Chen J, Wang X, Wang L, He Y. Optineurin inhibits NLRP3 inflammasome activation by enhancing mitophagy of renal tubular cells in diabetic nephropathy. *FASEB J* 2019 Mar;33(3):4571-4585.
148. Xu K, Guo C, Shi D, Meng J, Tian H, Guo S. Discovery of Natural Dimeric Naphthopyrones as Potential Cytotoxic Agents Through ROS-Mediated Apoptotic Pathway. *MAR DRUGS* 17(4). pii: E207. 2019 Apr 2
149. Chen YY, Wen SY, Deng CM, Yin XF, Sun ZH, Jiang MM, He QY. Proteomic Analysis Reveals that Odoroid A Triggers G2/M Arrest and Apoptosis in Colorectal Carcinoma Through ROS-p53 Pathway. *PROTEOMICS* 19(15):e1900092. 2019 Aug
150. Yu H, Li J, Hu X, Feng J, Wang H, Xiong F. Protective effects of cynaroside on oxidative stress in retinal pigment epithelial cells. *J BIOCHEM MOL TOXIC* 33(8):e22352. 2019 Aug
151. Yuan Y, Chen Y, Peng T, Li L, Zhu W, Liu F, Liu S, An X, Luo R, Cheng J, Liu J, Lu Y. Mitochondrial ROS-induced lysosomal dysfunction impairs autophagic flux and contributes to M1 macrophage polarization in a diabetic condition. *CLIN SCI* 133(15):1759-1777. 2019 Aug 14

152. Shao ZQ, Zhang X, Fan HH, Wang XS, Wu HM, Zhang L, Cheng WH, Zhu JH Selenoprotein T Promotes Proliferation and G1-to-S Transition in SK-N-SH Cells: Implications in Parkinson's Disease. *J Nutr* 149(12):2110-2119. 2019 Dec 1
153. Yu HF, Duan CC, Yang ZQ, Wang YS, Yue ZP, Guo B HB-EGF Ameliorates Oxidative Stress-Mediated Uterine Decidualization Damage. *Oxid Med Cell Longev* 2019:6170936. 2019 Dec 2
154. Jin F, Wu Z, Hu X, Zhang J, Gao Z, Han X, Qin J, Li C, Wang Y The PI3K/Akt/GSK-3 β /ROS/eIF2B pathway promotes breast cancer growth and metastasis via suppression of NK cell cytotoxicity and tumor cell susceptibility. *Cancer Biol Med* 16(1):38-54. 2019 Feb
155. Chen X, Hu Y, Zhang W, Chen K, Hu J, Li X, Liang L, Cai X, Hu J, Wang K, Huang A, Tang N Cisplatin induces autophagy to enhance hepatitis B virus replication via activation of ROS/JNK and inhibition of the Akt/mTOR pathway. *FREE RADICAL BIO MED* 131:225-236. 2019 Feb 1
156. Wang J, Wang X, Li ZZ, Guo F, Ding CZ, Zhao YY, Liu YL, Ma XJ, Li C, Wu LN, Qin Q, Zhao SY, Zhao D, Hao X, Wang SJ, Qin GJ The apoptosis and GLP-1 hyposecretion induced by LPS via RIP/ROS/mTOR pathway in GLUTag cells. *Biochimie* 162:229-238. 2019 Jul
157. Yang H, Li J, Yang C, Liu H, Cao Y Multi-walled carbon nanotubes promoted lipid accumulation in human aortic smooth muscle cells. *TOXICOL APPL PHARM* 374:11-19. 2019 Jul 1
158. Mo C, Shetti D, Wei K Erianin Inhibits Proliferation and Induces Apoptosis of HaCaT Cells via ROS-Mediated JNK/c-Jun and AKT/mTOR Signaling Pathways. *Molecules* 24(15). pii: E2727. 2019 Jul 26
159. Qi W, Zhu R, Bao C, Xiao J, Liu B, Sun M, Feng X, Gu J, Li Y, Lei L Porcine circovirus type 2 promotes *Actinobacillus pleuropneumoniae* survival during coinfection of porcine alveolar macrophages by inhibiting ROS production. *Vet Microbiol* 233:93-101. 2019 Jun
160. Mao M, Zhang T, Wang Z, Wang H, Xu J, Yin F, Wang G, Sun M, Wang Z, Hua Y, Cai Z Glucocalyxin A-induced oxidative stress inhibits the activation of STAT3 signaling pathway and suppresses osteosarcoma progression in vitro and in vivo. *BBA-MOL BASIS DIS* 1865(6):1214-1225. 2019 Jun 1
161. Zai W, Chen W, Han Y, Wu Z, Fan J, Zhang X, Luan J, Tang S, Jin X, Fu X, Gao H, Ju D, Liu H Targeting PARP and autophagy evoked synergistic lethality in hepatocellular carcinoma. *Carcinogenesis* pii: bgz104. 2019 Jun 6
162. Shen M, Hu Y, Yang Y, Wang L, Yang X, Wang B, Huang M Betulinic Acid Induces ROS-Dependent Apoptosis and S-Phase Arrest by Inhibiting the NF- κ B Pathway in Human Multiple Myeloma. *Oxid Med Cell Longev* 2019:5083158. 2019 Jun 9
163. Liu S, Yang R, Yin N, Wang YL, Faiola F Environmental and human relevant PFOS and PFOA doses alter human mesenchymal stem cell self-renewal, adipogenesis and osteogenesis. *ECOTOX ENVIRON SAFE* 169:564-572. 2019 Mar
164. Wang X, Pan J, Liu H, Zhang M, Liu D, Lu L, Tian J, Liu M, Jin T, An F AIM2 gene silencing attenuates diabetic cardiomyopathy in type 2 diabetic rat model. *Life Sci* 221:249-258. 2019 Mar 15
165. Ye B, Chen X, Dai S, Han J, Liang X, Lin S, Cai X, Huang Z, Huang W Emodin alleviates myocardial ischemia/reperfusion injury by inhibiting gasdermin D-mediated pyroptosis in cardiomyocytes. *DRUG DES DEV THER* 13:975-990. 2019 Mar 25
166. Zhao H, Xu X, Lei S, Shao D, Jiang C, Shi J, Zhang Y, Liu L, Lei S, Sun H, Huang Q Iturin A-like lipopeptides from *Bacillus subtilis* trigger apoptosis, paraptosis, and autophagy in Caco-2 cells. *J Cell Physiol* 234(5):6414-6427. 2019 May
167. Wang Z, Liu B, Zhu J, Wang D, Wang Y Nicotine-mediated autophagy of vascular smooth muscle cell accelerates atherosclerosis via nAChRs/ROS/NF- κ B signaling pathway. *Atherosclerosis* 284:1-10. 2019 May
168. Zhihan T, Xinyi M, Qingying L, Rufeig G, Yan Z, Xuemei C, Yanqing G, Yingxiong W, Junlin H Autophagy participates in cyst breakdown and primordial folliculogenesis by reducing reactive oxygen species levels in perinatal mouse ovaries. *J Cell Physiol* 234(5):6125-6135. 2019 May
169. Wang W, Dong X, You L, Sai N, Leng X, Yang C, Yin X, Ni J Apoptosis in HepaRG and HL-7702 cells induced by polyphyllin II through caspases activation and cell-cycle arrest. *J Cell Physiol* 234(5):7078-7089. 2019 May
170. Li X, Chen C, Dai Y, Huang C, Han Q, Jing L, Ma Y, Xu Y, Liu Y, Zhao L, Wang J, Sun X, Yao X Cinobufagin suppresses colorectal cancer angiogenesis by disrupting the endothelial mammalian target of rapamycin/hypoxia-inducible factor 1 α axis. *Cancer Sci* 110(5):1724-1734. 2019 May
171. Zhang T, Zhu X, Wu H, Jiang K, Zhao G, Shaikat A, Deng G, Qiu C Targeting the ROS/PI3K/AKT/HIF-1 α /HK2 axis of breast cancer cells: Combined administration of Polydatin and 2-Deoxy-d-glucose. *J Cell Mol Med* 23(5):3711-3723. 2019 May
172. Yu Q, Zhang M, Qian L, Wen D, Wu G Luteolin attenuates high glucose-induced podocyte injury via suppressing NLRP3 inflammasome pathway. *Life Sci* 225:1-7. 2019 May 15
173. Jin L, Ni J, Tao Y, Weng X, Zhu Y, Yan J, Hu B N-acetylcysteine attenuates PM2.5-induced apoptosis by ROS-mediated Nrf2 pathway in human embryonic stem cells. *Sci Total Environ* 666:713-720. 2019 May 20
174. Xiong G, Zhao L, Yan M, Wang X, Zhou Z, Chang X N-acetylcysteine alleviated paraquat-induced mitochondrial fragmentation and autophagy in primary murine neural progenitor cells. *J Appl Toxicol* 39(11):1557-1567. 2019 Nov
175. Lin XM, Li S, Zhou C, Li RZ, Wang H, Luo W, Huang YS, Chen LK, Cai JL, Wang TX, Zhang QH, Cao H, Wu XP Cisplatin induces chemoresistance through the PTGS2-mediated anti-apoptosis in gastric cancer. *INT J BIOCHEM CELL B* 116:105610. 2019 Nov
176. Liu B, Cui LS, Zhou B, Zhang LL, Liu ZH, Zhang L Monocarbonyl curcumin analog A2 potently inhibits angiogenesis by inducing ROS-dependent endothelial cell death. *Acta Pharmacol Sin* 40(11):1412-1423. 2019 Nov
177. Liu J, Mao C, Dong L, Kang P, Ding C, Zheng T, Wang X, Xiao Y Excessive Iodine Promotes Pyroptosis of Thyroid Follicular Epithelial Cells in Hashimoto's Thyroiditis Through the ROS-NF- κ B-NLRP3 Pathway. *FRONT ENDOCRINOL* 10:778. 2019 Nov 20
178. Zhou B, Xia M, Wang B, Thapa N, Gan L, Sun C, Guo E, Huang J, Lu Y, Cai H Clarithromycin synergizes with cisplatin to inhibit ovarian cancer growth in vitro and in vivo. *J Ovarian Res* 12(1):107. 2019 Nov 8
179. Chen M, Luo Y, Xu J, Chang MX, Liu JXCopper Regulates the Susceptibility of Zebrafish Larvae to Inflammatory Stimuli by Controlling Neutrophil/Macrophage Survival. *Front Immunol* 10:2599. 2019 Nov 8
180. He Y, Yang G, Yao F, Xian Y, Wang G, Chen L, Lv X, Gao H, Zheng Z, Sun L, Wang W, Lin R Sitagliptin inhibits vascular inflammation via the SIRT6-dependent signaling pathway. *Int Immunopharmacol* 75:105805. 2019 Oct
181. Long J, Ma W, Yu Z, Liu H, Cao Y Multi-walled carbon nanotubes (MWCNTs) promoted lipid accumulation in THP-1 macrophages through modulation of endoplasmic reticulum (ER) stress. *Nanotoxicology* 13(7):938-951. 2019 Sep
182. Zhang L, Liu B Sapylin inhibits lung cancer cell proliferation and promotes apoptosis by attenuating PI3K/AKT signaling. *J Cell Biochem* 120(9):14679-14687. 2019 Sep
183. Yan Z, Zhu S, Wang H, Wang L, Du T, Ye Z, Zhai D, Zhu Z, Tian X, Lu Z, Cao X MOTS-c inhibits Osteolysis in the Mouse Calvaria by affecting osteocyte-osteoclast crosstalk and inhibiting inflammation. *Pharmacol Res* 147:104381. 2019 Sep
184. Zhu HQ, Zhang C, Guo ZY, Yang JM, Guo JH, Chen C, Yao QH, Liu F, Zhang QW, Gao FH Oridonin induces Mdm2-p60 to promote p53-mediated apoptosis and cell cycle arrest in neuroblastoma. *CANCER MED-US* 8(11):5313-5326. 2019 Sep
185. Xue H, Zhao Z, Lin Z, Geng J, Guan Y, Song C, Zhou Y, Tai G Selective effects of ginseng pectins on galectin-3-mediated T cell activation and apoptosis. *CARBOHYD POLYM* 219:121-129. 2019 Sep 1
186. Xu F, Liu Y, Zhu X, Li S, Shi X, Li Z, Ai M, Sun J, Hou B, Cai W, Sun H, Ni L, Zhou Y, Qiu L Protective Effects and Mechanisms of Vaccarin on Vascular Endothelial Dysfunction in Diabetic Angiopathy. *Int J Mol Sci* 20(18). pii: E4587. 2019 Sep 17

187. Wang J, Deng H, Zhang J, Wu D, Li J, Ma J, Dong W α -Hederin induces the apoptosis of gastric cancer cells accompanied by glutathione decrement and reactive oxygen species generation via activating mitochondrial dependent pathway. *Phytother Res* 34(3):601-611. 2020 Mar
188. Xi WS, Tang H, Liu YY, Liu CY, Gao Y, Cao A, Liu Y, Chen Z, Wang H Cytotoxicity of vanadium oxide nanoparticles and titanium dioxide-coated vanadium oxide nanoparticles to human lung cells. *J Appl Toxicol* 40(5):567-577. 2020 May
189. Liu X, Ding S, Shi P, Dietrich R, Märthlbauer E, Zhu K. Non-hemolytic enterotoxin of *Bacillus cereus* induces apoptosis in Vero cells. *Cell Microbiol* 2017 Apr;19(4).
190. Duan X, Peng D, Zhang Y, Huang Y, Liu X, Li R, Zhou X, Liu J Sub-cytotoxic concentrations of ionic silver promote the proliferation of human keratinocytes by inducing the production of reactive oxygen species. *FRONT MED-PRC* 2018 Jun;12(3):289-300.
191. Jiahui Cui, Yang Liu, Xing Chang, Wenfeng Gou, Xuejiao Zhou, Zi Liu, Zengqiang Li, Yingliang Wu, Daiying Zuo Acetaldehyde Induces Neurotoxicity In Vitro via Oxidative Stress- And Ca²⁺ Imbalance-Mediated Endoplasmic Reticulum Stress *Oxid Med Cell Longev* 2019 Jan 9;2019:2593742.
192. Lingmin Zhang, Yingying Zhou, Qingqing Xia, Ying Chen, Jie Li All-trans-retinal induces autophagic cell death via oxidative stress and the endoplasmic reticulum stress pathway in human retinal pigment epithelial cells *Toxicol Lett* 2020 Apr 1;322:77-86.
193. Jiawen Cui, Honggui Liu, Shiwen Xu Selenium-deficient diet induces necroptosis in the pig brain by activating TNFR1 via mir-29a-3p *Metallomics* 2020 Aug 19;12(8):1290-1301.
194. Jie Gu, Hongye Wang, Linjun Zhou, Deling Fan, Lili Shi, Guixiang Ji, Aihua Gu Oxidative stress in bisphenol AF-induced cardiotoxicity in zebrafish and the protective role of N-acetyl N-cysteine *Sci Total Environ* 2020 Aug 20;731:139190.
195. Jingjing Liu, Hui He, Jing Wang, Xiaoping Guo, Hongkun Lin, Huimin Chen, Chunjie Jiang, Li Chen, Ping Yao, Yuhan Tang Oxidative stress-dependent frataxin inhibition mediated alcoholic hepatocytotoxicity through ferroptosis *Toxicology* 2020 Dec 1;445:152584.
196. Mengfei Cao, Ziqi Mao, Meiling Peng, Qianru Zhao, Xia Sun, Jinchuan Yan, Wei Yuan Extracellular cyclophilin A induces cardiac hypertrophy via the ERK/p47phox pathway *Mol Cell Endocrinol* 2020 Dec 1;518:110990.
197. Lijia Pan, Litong Nie, Sheng Yao, Aiwei Bi, Yang Ye, Yeming Wu, Zhen Tan, Zhixiang Wu Bufalin exerts antitumor effects in neuroblastoma via the induction of reactive oxygen species-mediated apoptosis by targeting the electron transport chain *Int J Mol Med* 2020 Dec;46(6):2137-2149.
198. Zongliang Lu, Changpeng Wu, Mingxing Zhu, Wei Song, He Wang, Jiajia Wang, Jing Guo, Na Li, Jie Liu, Yanwu Li, Hongxia Xu Ophiopogonin D' induces RIPK1-dependent necroptosis in androgen-dependent LNCaP prostate cancer cells *Int J Oncol* 2020 Feb;56(2):439-447.
199. Chunyan Li, Xiao Sun, Ang Li, Min Mo, Zhongxi Zhao S-Allylmercaptocysteine attenuates Bleomycin-induced pulmonary fibrosis in mice via suppressing TGF- β 1/Smad and oxidative stress pathways *Int Immunopharmacol* 2020 Feb;79:106110.
200. Yongze Zhang, Ximei Shen, Ling Cheng, Ran Chen, Fengying Zhao, Shuai Zhong, Chao Lan, Sunjie Yan Toll-like receptor 4 knockout protects against diabetic-induced imbalance of bone metabolism via autophagic suppression *Mol Immunol* 2020 Jan;117:12-19.
201. Xiaoting Shao, Xinying Zhang, Jing Hu, Tielei Gao, Junting Chen, Changqing Xu, Can Wei Dopamine 1 receptor activation protects mouse diabetic podocytes injury via regulating the PKA/NOX-5/p38 MAPK axis *Exp Cell Res* 2020 Mar 15;388(2):111849.
202. Yanting Li, Mo Yang, Tao Meng, Yong Niu, Yufei Dai, Liping Zhang, Xiaomei Zheng, Pasi Jalava, Guanghui Dong, Weimin Gao, Yuxin Zheng Oxidative stress induced by ultrafine carbon black particles can elicit apoptosis in vivo and vitro *Sci Total Environ* 2020 Mar 20;709:135802.
203. Yuwan Zhao, Qiuming Luo, Jierong Mo, Jianwei Li, Dongcai Ye, Zhixian Ao, Lixin Chen, Jianjun Liu Metformin in combination with JS-K inhibits growth of renal cell carcinoma cells via reactive oxygen species activation and inducing DNA breaks *J Cancer* 2020 Mar 31;11(13):3701-3712.
204. Hai-Fan Yu, Cui-Cui Duan, Zhan-Qing Yang, Yu-Si Wang, Zhan-Peng Yue, Bin Guo Malic enzyme 1 is important for uterine decidualization in response to progesterone/cAMP/PKA/HB-EGF pathway *FASEB J* 2020 Mar;34(3):3820-3837.
205. Xia Yan, Miao Li, Lei Chen, Xiao Peng, Zu-Jun Que, Hong-Mei An, Ke-Ping Shen, Bing Hu α -Solanine inhibits growth and metastatic potential of human colorectal cancer cells *Oncol Rep* 2020 May;43(5):1387-1396.
206. Nan Bo, Hong Yilin, Yang Chaoyue, Li Lu, Yuan Yuan Acrylamide induces NLRP3 inflammasome activation via oxidative stress- and endoplasmic reticulum stress-mediated MAPK pathway in HepG2 cells *Food Chem Toxicol* 2020 Nov;145:111679.
207. Aochang Chen, Pan Jiang, Falak Zeb, Xiaoyue Wu, Chuyue Xu, Lijun Chen, Qing Feng EGCG regulates CTR1 expression through its pro-oxidative property in non-small-cell lung cancer cells *J Cell Physiol* 2020 Nov;235(11):7970-7981.
208. Qing Tian, Bo Qin, Yufan Gu, Lijun Zhou, Songfeng Chen, Song Zhang, Shuhao Zhang, Qicai Han, Yong Liu, Xuejian Wu ROS-Mediated Necroptosis Is Involved in Iron Overload-Induced Osteoblastic Cell Death *Oxid Med Cell Longev* 2020 Oct 16;2020:1295382.
209. Lei Huang, Zhaoyun Liu, Hui Liu, Kai Ding, Fu Mi, Chenhuan Xiang, Guanrou Wang, Yixuan Guo, Rong Fu Iron Overload Impairs Bone Marrow Mesenchymal Stromal Cells from Higher-Risk MDS Patients by Regulating the ROS-Related Wnt/ β -Catenin Pathway *Stem Cells Int* 2020 Oct 31;2020:8855038.
210. Jin Xing, Zhihan Wang, Hao Xu, Chaobo Liu, Zilong Wei, Liang Zhao, Li Ren Pak2 inhibition promotes resveratrol-mediated glioblastoma A172 cell apoptosis via modulating the AMPK-YAP signaling pathway *J Cell Physiol* 2020 Oct;235(10):6563-6573.
211. Tong Chen, Tongxu Gu, Liang Cheng, Xiang Li, Gaorong Han, Zhuang Liu Porous Pt nanoparticles loaded with doxorubicin to enable synergistic Chemo-/Electrodynamic Therapy *Biomaterials* 2020 Oct;255:120202.
212. Shilei Bi, Jingman Tang, Lizi Zhang, Lijun Huang, Jingsi Chen, Zhijian Wang, Dunjin Chen, Lili Du Fine particulate matter reduces the pluripotency and proliferation of human embryonic stem cells through ROS induced AKT and ERK signaling pathway *Reprod Toxicol* 2020 Sep;96:231-240.
213. Li-Zhen Qiu, Lan-Xin Yue, Yu-Hao Ni, Wei Zhou, Cong-Shu Huang, Hui-Fang Deng, Ning-Ning Wang, Hong Liu, Xian Liu, Yong-Qiang Zhou, Cheng-Rong Xiao, Yu-Guang Wang, Yue Gao Emodin-Induced Oxidative Inhibition of Mitochondrial Function Assists BiP/IRE1 α /CHOP Signaling-Mediated ER-Related Apoptosis *Oxid Med Cell Longev* 2021 Apr 22;2021:8865813.
214. Qiujie Wang, Cheng Bin, Qiang Xue, Qingzhu Gao, Ailong Huang, Kai Wang, Ni Tang GSTZ1 sensitizes hepatocellular carcinoma cells to sorafenib-induced ferroptosis via inhibition of NRF2/GPX4 axis *Cell Death Dis* 2021 Apr 30;12(5):426.
215. Yongqing Heng, Yupei Liang, Junqian Zhang, Lihui Li, Wenjuan Zhang, Yanyu Jiang, Shiwen Wang, Lijun Jia Camptothecin Inhibits Neddylation to Activate the Protective Autophagy Through NF- κ B/AMPK/mTOR/ULK1 Axis in Human Esophageal Cancer Cells *Front Oncol* 2021 Apr 8;11:671180.
216. Xiujin Shen, Haibing Wang, Chunhua Weng, Hong Jiang, Jianghua Chen Caspase 3/GSDME-dependent pyroptosis contributes to chemotherapy drug-induced nephrotoxicity *Cell Death Dis* 2021 Feb 15;12(2):186.
217. Shaohong Fang, Xin Wan, Xiaoyi Zou, Song Sun, Xinran Hao, Chenchen Liang, Zhenming Zhang, Fangni Zhang, Bo Sun, Hulun Li, Bo Yu Arsenic trioxide induces macrophage autophagy and atheroprotection by regulating ROS-dependent TFEB nuclear translocation and AKT/mTOR pathway *Cell Death Dis* 2021 Jan 18;12(1):88.
218. Lei Chen, Miao Hao, Jingmin Yan, Lin Sun, Guihua Tai, Hairong Cheng, Yifa Zhou Citrus-derived DHCP inhibits mitochondrial complex II to enhance TRAIL

- sensitivity via ROS-induced DR5 upregulation *J Biol Chem* 2021 Jan-Jun;296:100515.
219. Jian-Kun Deng, Xueqin Zhang, Hong-Luan Wu, Yu Gan, Ling Ye, Huijuan Zheng, Zebing Zhu, Wei Jing Liu, Hua-Feng Liu ROS-ERK Pathway as Dual Mediators of Cellular Injury and Autophagy-Associated Adaptive Response in Urinary Protein-Irritated Renal Tubular Epithelial Cells *J Diabetes Res* 2021 Mar 1;2021:6614848.
220. Jiayu Zhang, Tingting Lan, Xue Han, Yuchan Xu, Li Liao, Li Xie, Bo Yang, Weidong Tian, Weihua Guo Improvement of ECM-based bioroot regeneration via N-acetylcysteine-induced antioxidative effects *Stem Cell Res Ther* 2021 Mar 22;12(1):202.
221. Xuelu Ding, Ziyang Nie, Zhaoyuan She, Xue Bai, Qiuhui Yang, Feng Wang, Fei Wang, Xin Geng The Regulation of ROS- and BECN1-Mediated Autophagy by Human Telomerase Reverse Transcriptase in Glioblastoma *Oxid Med Cell Longev* 2021 Mar 8;2021:6636510.
222. Shengping Ji, Yuqian Ma, Xiaoyan Xing, Binbin Ge, Yutian Li, Xinyue Xu, Jiliang Song, Mei Xiao, Feng Gao, Wenyan Jiang, Chunyan Fang, Xuejian Wang Suppression of CD13 Enhances the Cytotoxic Effect of Chemotherapeutic Drugs in Hepatocellular Carcinoma Cells *Front Pharmacol* 2021 May 11;12:660377.
223. Chen Yong, Zhengchun Zhang, Guoshun Huang, Yang Yang, Yiye Zhu, Leilei Qian, Fang Tian, Li Liu, Qijing Wu, Zhongchi Xu, Chong Chen, Jing Zhao, Kun Gao, Enchao Zhou Exploring the Critical Components and Therapeutic Mechanisms of *Perilla frutescens* L. in the Treatment of Chronic Kidney Disease via Network Pharmacology *Front Pharmacol* 2021 Nov 26;12:717744.
224. Shanshan Dai, Bozhi Ye, Lingfeng Zhong, Yanghao Chen, Guangliang Hong, Guangju Zhao, Lan Su, Zhongqiu Lu GSDMD Mediates LPS-Induced Septic Myocardial Dysfunction by Regulating ROS-dependent NLRP3 Inflammasome Activation *Front Cell Dev Biol* 2021 Nov 8;9:779432.
225. Xiyu Zhang, Cuiting Zheng, Zhenqiang Gao, Lingling Wang, Chen Chen, Yuanyuan Zheng, Yan Meng PKM2 promotes angiotensin-II-induced cardiac remodelling by activating TGF- β /Smad2/3 and Jak2/Stat3 pathways through oxidative stress *J Cell Mol Med* 2021 Nov;25(22):10711-10723.
226. Yanting Pang, Daming Wu, Ying Ma, Yuna Cao, Qing Liu, Meng Tang, Yuepu Pu, Ting Zhang Reactive oxygen species trigger NF- κ B-mediated NLRP3 inflammasome activation involvement in low-dose CdTe QDs exposure-induced hepatotoxicity *Redox Biol* 2021 Nov;47:102157.
227. Zhicheng Peng, Chenxu Zhao, Xiliang Du, Yuchen Yang, Yunfei Li, Yuxiang Song, Baochen Fang, Yuming Zhang, Xia Qin, Yuanyuan Zhang, Xiaobing Li, Zhe Wang, Xinwei Li, Guowen Liu Autophagy Induced by Palmitic Acid Regulates Neutrophil Adhesion Through the Granule-Dependent Degradation of α M β 2 Integrin in Dairy Cows With Fatty Liver *Front Immunol* 2021 Oct 7;12:726829.
228. Yanan Li, Yaohong Zhu, Bingxin Chu, Ning Liu, Shiyang Chen, Jiufeng Wang *Lactobacillus rhamnosus* GR-1 Prevents *Escherichia coli*-Induced Apoptosis Through PINK1/Parkin-Mediated Mitophagy in Bovine Mastitis *Front Immunol* 2021 Sep 14;12:715098.

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