



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

一氧化氮检测试剂盒

产品编号	产品名称	包装
S0021S	一氧化氮检测试剂盒	500次
S0021M	一氧化氮检测试剂盒	2500次

产品简介:

- 碧云天生产的一氧化氮检测试剂盒采用了经典的Griess Reagent，并对其测定的溶液体系进行了优化，使检测下限达到 $1\mu M$ ，在 $1-100\mu M$ 范围内有非常完美的线性关系。
- 检测速度极快，完成一条标准曲线或5-10个样品的测定只需3分钟。
- 样品范围广，可以检测细胞或组织及其培养液中的一氧化氮的含量，酚红和10%血清均对测定无明显干扰，也可以检测血清、血浆和尿液中一氧化氮的含量。

包装清单:

产品编号	产品名称	包装
S0021S-1	1M NaNO ₂	1ml
S0021S-2	Griess Reagent I	25ml
S0021S-3	Griess Reagent II	25ml
—	说明书	1份

产品编号	产品名称	包装
S0021M-1	1M NaNO ₂	1ml
S0021M-2	Griess Reagent I	125ml
S0021M-3	Griess Reagent II	125ml
—	说明书	1份

保存条件:

-20°C避光保存，一年有效。4°C避光保存，半年有效。

注意事项:

- 本产品对人体有害，操作时请小心，并注意有效防护以避免直接接触人体或吸入体内。
- 如保存不当导致溶液变色或沉淀，则说明该溶液已经失效，请购买新的试剂盒。
- 不建议使用RIPA裂解液对细胞或者组织进行裂解，使用RIPA裂解液可能在后续反应中产生沉淀，影响测试。推荐使用碧云天的细胞与组织裂解液(一氧化氮检测用)(S3090)或Western及IP细胞裂解液(P0013)。
- 对于血清样品中NO含量的测定，粗略地计算，可以直接用水稀释标准品，从而计算出血清样品中NO的浓度。比较精确地计算，如果测定的正常血清是常见血清可以从文献上查到其中NO的浓度，然后用该已知NO浓度的血清稀释标准品，这样就可以得到比较精确的NO浓度。或者使用已知浓度的人或其它动物的血清稀释标准品也同样可以达到目的。或者参照类似文献进行血清中NO浓度的测定。
- 本产品仅限于专业人员的科学研究用，不得用于临床诊断或治疗，不得用于食品或药品，不得存放于普通住宅内。
- 为了您的安全和健康，请穿实验服并戴一次性手套操作。

使用说明:

1. 取出Griess Reagent I和II，使回复室温。

2. 用待测样品所用溶液稀释标准品(1-100 μM)。

例如样品为细胞培养液上清，细胞培养液为DMEM+10%FBS，则用DMEM+10%FBS稀释标准品。通常标准品的浓度可取0, 1, 2, 5, 10, 20, 40, 60, 100 μM 。

3. 按50 μl /孔，在96孔板中加入标准品及样品。

样品为培养液上清，可以直接取样，如果有可沉淀物则需离心后取上清。如样品为细胞或组织，可以快速冻融裂解，然后离心沉淀取上清，体积不足50 μl 可以用重蒸水或0.9% NaCl稀释(相应地标准品也需用重蒸水或0.9% NaCl稀释)。细胞或组织也可以用于Western或IP的裂解液(无需添加抑制剂)裂解，同样标准品也需相应稀释。推荐使用碧云天生产的细胞与组织裂解液(一氧化氮检测用)(S3090)或Western及IP细胞裂解液(P0013)；不建议使用RIPA裂解液。

4. 按 $50\mu\text{l}/\text{孔}$, 在各孔中加入室温 Griess Reagent I。

5. 按 $50\mu\text{l}/\text{孔}$, 各孔中加入室温 Griess Reagent II。

6. 540nm 测定吸光度。

如无540nm滤光片, 520-560nm的滤光片也可。如无酶标仪或合适的滤光片, 也可以通过目测比色, 确定样品中一氧化氮的浓度。目测比色时标准品需要更为精细的浓度梯度。

7. 根据标准品曲线计算出样品中一氧化氮的浓度。标准曲线示例参见图1, 供参考。实际测定时, 由于反应条件、试剂盒批次的不同等因素, 会导致检测结果与示例数据存在一定差异。

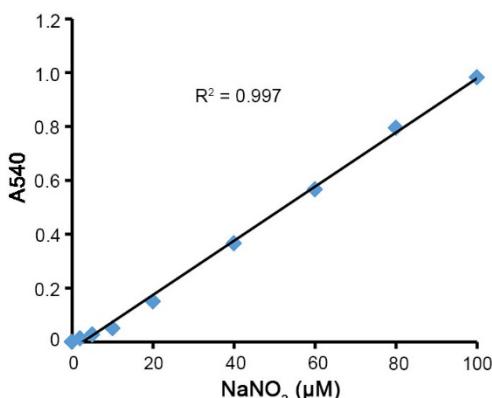


图1. 碧云天生产的一氧化氮检测试剂盒的参考标准曲线。

使用本产品的文献:

1. Lu-yang YU, Bo LIN, Zhen-lin ZHANG, Li-he GUO. Direct transfer of A20 gene into pancreas protected mice from streptozotocin-induced diabetes1. *Acta Pharmacol Sin.* 2004 Jun; 25 (6): 721-6.
2. Bochu W, Chunhong T, Liancai Z, Qi C. Investigation on the effects of diamide on NO production in vascular endothelial cells (VEC). *Colloids Surf B Biointerfaces.* 2004 Jun 1;35(3-4):205-8.
3. Yan-hua Zeng, Yi-mou Wu, Wen-bo Zhang, Min-jun Yu, Cui-ming Zhu and Li-zhi Tan. Activation of nuclear actor κB and induction of inducible nitric oxide synthase by lipid-associated membrane proteins isolated from Mycoplasma penetrans. *Chin Med J.* 2004;117(7):997-1001.
4. Wang Bochu, Zhu Liancai, Chen Qi. Primary study on the application of Serum Pharmacology in Chinese traditional medicine. *Colloids and Surfaces B: Biointerfaces.* 2005;43:194-7.
5. Gao L, Sun W, Ma C, Zhang L, Cao Y, Liu S, Liang X, Liu H. Effects on macrophages activity transfected transiently with pcDNA32HBV. *Chin J Infect Dis.* 2005; 23(2):95-8.
6. Deng Z, Wu Y, Zeng Y, Chen L, Yu M. Expression of inducible nitric oxide synthase induced by lipid2associated membrane proteins of Ureaplasma urealyticum is regulated by nuclear factor κB2mediated mechanism in murine macrophages. *J Microbiol Immunol.* 2005; 3(4):260-5.
7. Liu X, Fan XL, Zhao Y, Luo GR, Li XP, Li R, Le WD. Estrogen provides neuroprotection against activated microglia-induced dopaminergic neuronal injury through both estrogen receptor-alpha and estrogen receptor-beta in microglia. *J Neurosci Res.* 2005 Sep 1;81(5):653-65.
8. Yin X, Zhang Y, Yu J, Zhang P, Shen J, Qiu J, Wu H, Zhu X. The antioxidative effects of astragalus saponin I protect against development of early diabetic nephropathy. *J Pharmacol Sci.* 2006 Jun;101(2):166-73.
9. Sun Z, Xi H, Chen Z, Yao H. Effect of Lutein and Zeaxanthin on Nitric Oxide Production in Mouse Peritoneal Macrophages. *Food Sci.* 2006; 27(11):505-9.
10. Yu H, Zhang HQ, Xiao FY, Xiao GF, Huang XY. Effects of asymmetrical dimethylarginine on number and activity of endothelial progenitor cells in vitro. *J Clin Cardiol (China).* 2007 Jun;23(6):454-6.
11. Ye CL, Jin YL, Zhou GX, Qin L. Effects of Egb761 on the antioxxygen and cell apoptosis induced by H2O2 in RIN-m beta cells. *Zhong Yao Cai.* 2007 Aug;28(4):360-4.
12. Gao S, Liu C, Qu S, Song J, Li J, Zhang P, Wang Q, Guo C, Gao F, Zhang L. Non-cell Corynebacterium parvum generated by nanotechnology: a promising immunomodulator with less side effects. *Int Immunopharmacol.* 2007 Oct;7(10):1334-42.
13. Cai WJ, Wang MJ, Moore PK, Jin HM, Yao T, Zhu YC. The novel proangiogenic effect of hydrogen sulfide is dependent on Akt phosphorylation. *Cardiovasc Res.* 2007 Oct 1;76(1):29-40.
14. Zhao L, Tao JY, Zhang SL, Pang R, Jin F, Dong JH, Guo YJ. Inner anti-inflammatory mechanisms of petroleum ether extract from *Melilotus suaveolens* Ledeb. *Inflammation.* 2007 Dec;30(6):213-23.
15. Zhao L, Zhang SL, Tao JY, Pang R, Jin F, Guo YJ, Dong JH, Ye P, Zhao HY, Zheng GH. Preliminary exploration on anti-inflammatory mechanism of Corilagin (beta-1-O-galloyl-3,6-(R)-hexahydroxy diphenoxy-D-glucose) in vitro. *Int Immunopharmacol.* 2008 Jul; 8(7):1059-64.
16. Chen HP, Liao ZP, Huang QR, He M. Sodium ferulate attenuates anoxia/reoxygenation-induced calcium overload in neonatal rat cardiomyocytes by NO/cGMP/PKG pathway. *Eur J Pharmacol.* 2009 Jan 28;603(1-3):86-92.
17. Qian H, Chen W, Li J, Wang J, Zhou Z, Liu W, Fu Z. The effect of exogenous nitric oxide on alleviating herbicide damage in *Chlorella vulgaris*. *Aquat Toxicol.* 2009 May 17;92(4):250-7.
18. Zou CG, Zhao YS, Gao SY, Li SD, Cao XZ, Zhang M, Zhang KQ. Homocysteine promotes proliferation and activation of microglia. *Neurobiol Aging.* 2010 Dec;31(12):2069-79.
19. Ding XL, Wang YH, Ning LP, Zhang Y, Ge HY, Jiang H, Wang R, Yue SW. Involvement of TRPV4-NO-cGMP-PKG pathways in the development of thermal hyperalgesia following chronic compression of the dorsal root ganglion in rats. *Behav Brain Res.* 2010;208(1):194-201.
20. Wang S, Zhang Z, Lin X, Xu DS, Feng Y, Ding K. A polysaccharide, MDG-1, induces S1P1 and bFGF expression and augments survival and angiogenesis in the ischemic heart. *Glycobiology.* 2010;20(4):473-84.
21. Wang J, Du JR, Wang Y, Kuang X, Wang CY. Z-ligustilide attenuates lipopolysaccharide-induced proinflammatory response via inhibiting NF-κappaB pathway in primary rat microglia. *Acta Pharmacol Sin.* 2010;31(7):791-7.
22. Lin Q, Ding X, Qiu F, Song X, Fu G, Ji J. In situ endothelialization of intravascular stents coated with an anti-CD34 antibody functionalized heparin-collagen multilayer. *Biomaterials.* 2010;31(14):4017-25.
23. Huang JZ, Chen YZ, Su M, Zheng HF, Yang YP, Chen J, Liu CF. dl-3-n-Butylphthalide prevents oxidative damage and reduces mitochondrial dysfunction in an MPP(+) -induced cellular model of Parkinson's disease. *Neurosci Lett.* 2010;475(2):89-94.
24. Yan TT, Li Q, Zhang XH, Wu WK, Sun J, Li L, Zhang Q, Tan HM. Homocysteine impaired endothelial function through compromised vascular endothelial growthfactor/Akt/endothelial nitric oxide synthase signalling. *Clin Exp Pharmacol Physiol.* 2010 Nov;37(11):1071-7.
25. Zhang Q, Zhou H, Yan B. Reducing nanotube cytotoxicity using a nano-combinatorial library approach. *Methods Mol Biol.* 2010; 625:95-107.
26. Zhao L, Tao JY, Zhang SL, Jin F, Pang R, Dong JH. N-butanol Extract from *Melilotus Suaveolens* Ledeb Affects Pro- and Anti-Inflammatory Cytokines and Mediators. *Evid Based Complement Alternat Med.* 2010

Mar;7(1):97-106.

27. Zhao CQ, Zhang YH, Jiang SD, Li H, Jiang LS, Dai LY. ADAMTS-5 and intervertebral disc degeneration: the results of tissue immunohistochemistry and in vitro cell culture. *J Orthop Res*. 2011 May; 29(5):718-25.
28. Zhang H, Zhao X, Yang J, Yin H, Wang W, Lu H, Du Y. Nitric oxide production and its functional link with OIPK in tobacco defense response elicited by chitooligosaccharide. *Plant Cell Rep*. 2011 Jun;30(6):1153-62.
29. Gong L, Liu FQ, Wang J, Wang XP, Hou XG, Sun Y, Qin WD, Wei SJ, Zhang Y, Chen L, Zhang MX. Hyperglycemia induces apoptosis of pancreatic islet endothelial cells via reactive nitrogen species-mediated Jun N-terminal kinase activation. *Biochim Biophys Acta*. 2011 Jun;1813(6):1211-9.
30. Huang X, Zhao Y, Jia S, Yan D, Chen Z. Effects of daintain/AIF-1 on β cell dysfunction in INS-1 cells. *Biosci Biotechnol Biochem*. 2011; 75(9):1842-4.
31. Wu LH, Xu ZL, Dong D, He SA, Yu H. Protective Effect of Anthocyanins Extract from Blueberry on TNBS-induced IBD Model of Mice. *ECAM Advance Access published*. 2011;2011:525462.
32. Liu FQ, Zhang XL, Gong L, Wang XP, Wang J, Hou XG, Sun Y, Qin WD, Wei SJ, Zhang Y, Chen L, Zhang MX. Glucagon-like peptide 1 protects microvascular endothelial cells by inactivating the PARP-1/iNOS/NO pathway. *Mol Cell Endocrinol*. 2011 Jun 6; 339(1-2):25-33.
33. Xu XL, Huang YJ, Chen XF, Lin DY, Zhang W. 2,3,4',5'-Tetrahydroxystilbene-2-O- β -d-glucoside Inhibits Proliferation of Vascular Smooth Muscle Cells: Involvement of NO/cGMP/PKG Pathway. *Phytother Res*. 2012 Jul;26(7):1068-74.
34. Ji Y, Wei Y, Liu X, Wang J, Ren K, Ji J. Zwitterionic polycarboxybетaine coating functionalized with REDV peptide to improve selectivity for endothelial cells. *J Biomed Mater Res A*. 2012 Jun;100(6):1387-97.
35. Zhao JH, Shen T, Yang X, Zhao H, Li X, Xie WD. Sesquiterpenoids from Farfugium japonicum and their inhibitory activity on NO production in RAW264.7 cells. *Arch Pharm Res*. 2012 Jul;35(7):1153-8.
36. Shen W, Cai K, Yang Z, Yan Y, Yang W, Liu P. Improved endothelialization of NiTi alloy by VEGF functionalized nanocoating. *Colloids Surf B Biointerfaces*. 2012 Jun 1;94:347-53.
37. Jia Y, Ji L, Zhang S, Xu L, Yin L, Li L, Zhao Y, Peng J. Total flavonoids from Rosa Laevigata Michx fruit attenuates hydrogen peroxide induced injury in human umbilical vein endothelial cells. *Food Chem Toxicol*. 2012 Jul 4;50(9):3133-41.
38. Chen HP, He M, Mei ZJ, Huang QR, Huang M. Sasanquasaponin up-regulates anion exchanger 3 expression and elicits cardioprotection via NO/RAS/ERK1/2 pathway. *Can J Physiol Pharmacol*. 2012 Jul; 90(7):873-80.
39. Yu Y, Fan SM, Yuan SJ, Tashiro SI, Onodera S, Ikejima T. Nitric oxide (\bullet NO) generation but not ROS plays a major role in silibinin-induced autophagic and apoptotic death in human epidermoid carcinoma A431 cells. *Free Radic Res*. 2012 Nov;46(11):1346-60.
40. Li X, Liu D, Liu X, Jiang W, Zhou W, Yan W, Cen Y, Li B, Cao G, Ding G, Pang X, Sun J, Zheng J, Zhou H. CpG ODN107 potentiates radio sensitivity of human glioma cells via TLR9-mediated NF- κ B activation and NO production. *Tumour Biol*. 2012 Oct;33(5):1607-18.
41. Huang J, Li LS, Yang DL, Gong QH, Deng J, Huang XN. Inhibitory Effect of Ginsenoside Rg1 on Vascular Smooth Muscle Cell Proliferation Induced by PDGF-BB Is Involved in Nitric Oxide Formation. *Evid Based Complement Alternat Med*. 2012;2012:314395.
42. Wang Y, Zhu Y, Gao L, Yin H, Xie Z, Wang D, Zhu Z, Han X. Formononetin attenuates IL-1 β -induced apoptosis and NF- κ B activation in INS-1 cells. *Molecules*. 2012 Aug 24;17(9):10052-64.
43. Liu Q, Zheng J, Yin DD, Xiang J, He F, Wang YC, Liang L, Qin HY, Liu L, Liang YM, Han H. Monocyte to macrophage differentiation-associated (MMD) positively regulates ERK and Akt activation and TNF- α and NO production in macrophages. *Mol Biol Rep*. 2012 May;39(5):5643-50.
44. Zheng J, Yang B, Yu Y, Chen Q, Huang T, Li D. Ganoderma lucidum polysaccharides exert anti-hyperglycemic effect on streptozotocin-induced diabetic rats through affecting β -cells. *Comb Chem High Throughput Screen*. 2012 Aug;15(7):542-50.
45. Di S, Tian Z, Qian A, Li J, Wu J, Wang Z, Zhang D, Yin D, Brandi ML, Shang P. Large gradient high magnetic field affects FLG29.1 cells differentiation to form osteoclast-like cells. *Int J Radiat Biol*. 2012 Nov;88(11):806-13.
46. Han Y, Li X, Zhou S, Meng G, Xiao Y, Zhang W, Wang Z, Xie L, Liu Z, Lu H, Ji Y. 17 β -estradiol antagonizes the down-regulation of ER α /NOS-3 signaling in vascular endothelial dysfunction of female diabetic rats. *PLoS One*. 2012;7(11):e50402.
47. Yuan H, Zhang W, Li H, Chen C, Liu H, Li Z. Neuroprotective effects of resveratrol on embryonic dorsal root ganglion neurons with neurotoxicity induced by ethanol. *Food Chem Toxicol*. 2013 May;55:192-201.
48. Yang X, Sun L, Wu X, Wang X, Fan Y. Effect of simulated microgravity on osteocytes responding to fluid shear stress. *Acta Astronautica*. 2013 (Mar-Apr);84:237-43.
49. Kang H, Fan Y, Sun A, Jia X, Deng X. Simulated microgravity exposure modulates the phenotype of cultured vascular smooth muscle cells. *Cell Biochem Biophys*. 2013 May;66(1):121-30.
50. Tie L, An Y, Han J, Xiao Y, Xiaokaiti Y, Fan S, Liu S, Chen AF, Li X. Genistein accelerates refractory wound healing by suppressing superoxide and FoxO1/iNOSpathway in type 1 diabetes. *J Nutr Biochem*. 2013 Jan;24(1):88-96.
51. Wei Y, Ji Y, Xiao LL, Lin QK, Xu JP, Ren KF, Ji J. Surface engineering of cardiovascular stent with endothelial cell selectivity for in vivo re-endothelialisation. *Biomaterials*. 2013 Apr;34(11):2588-99.
52. Chen X, Gu M, Zhao X, Zheng X, Qin Y, You X. Deterioration of cardiac function after acute myocardial infarction is prevented by transplantation of modified endothelial progenitor cells overexpressing endothelial NO synthases. *Cell Physiol Biochem*. 2013;31(2-3):355-65.
53. Bai F, Ni B, Liu M, Feng Z, Xiong Q, Xiao S, Shao G. Mycoplasma hyopneumoniae-derived lipid-associated membrane proteins induce apoptosis in porcine alveolar macrophage via increasing nitric oxide production, oxidative stress, and caspase-3 activation. *Veterinary Immunology and Immunopathology*. 2013 Sep 15; 155(3):155-61.
54. Yuan P, Wu WH, Gao L, Zheng ZQ, Liu D, Mei HY, Zhang ZL, Jing ZC. Oestradiol ameliorates monocrotaline pulmonary hypertension via NO, prostacyclin and endothelin-1 pathways. *Eur Respir J*. 2013 May; 41(5):1116-25.
55. Wu J, Li M, Liu L, An Q, Zhang J, Zhang J, Li M, Duan W, Liu D, Li Z, Luo C. Nitric Oxide and Interleukins are Involved in Cell Proliferation of RAW264.7 Macrophages Activated by ViiliExopolysaccharides. *Inflammation*. 2013 Aug;36(4):954-61.
56. Fan YF, Zhang R, Jiang X, Wen L, Wu DC, Liu D, Yuan P, Wang YL, Jing ZC. The phosphodiesterase-5 inhibitor vardenafil reduces oxidative stress while reversing pulmonary arterial hypertension. *Cardiovasc Res*. 2013 Aug 1;99(3):395-403.
57. GUO J, CHEN E, YIN Y, Ping WANG P, LI Y, CHEN X, WU G, WANG Z. Nitric Oxide Content in Wheat Leaves and Its Relation to Programmed Cell Death of Main Stem and Tillers Under Different Nitrogen Levels. *Journal of Integrative Agriculture*. 2013 Feb; Vol.12(2):239-50.
58. Xiang Q, Liu Z, Wang Y, Xiao H, Wu W, Xiao C, Liu X. Carnosic acid attenuates lipopolysaccharide-induced liver injury in rats via fortifying cellular antioxidant defense system. *Food Chem Toxicol*. 2013 Mar;53:1-9.
59. Xue X, Yang D, Wang D, Xu X, Zhu L, Zhao Z. Solidification of floating organic drop liquid-phase microextraction cell fishing with gas chromatography-mass spectrometry for screening bioactive components from Amomum villosum Lour. *Biomed Chromatogr*. 2015 Apr; 29(4):626-32.
60. Chen H, Wu D, Ding X, Ying W. SIRT2 is required for lipopolysaccharide-induced activation of BV2 microglia. *Neuroreport*. 2015 Jan 21;26(2):88-93.
61. Wang Y, Gao H, Zhang W, Fang L. Thymoquinone inhibits lipopolysaccharide-induced inflammatory mediators in BV2 microglial cells. *Int Immunopharmacol*. 2015 May;26(1):169-73.
62. Fu YR, Gao KS, Ji R, Yi ZJ. Differential transcriptional response in macrophages infected with cell wall deficient versus normal Mycobacterium Tuberculosis. *Int J Biol Sci*. 2015 Jan 1;11(1):22-30.
63. Zhou LT, Wang KJ, Li L, Li H, Geng M. Pinocembrin inhibits lipopolysaccharide-induced inflammatory mediators production in BV2 microglial cells through suppression of PI3K/Akt/NF- κ B pathway. *Eur J Pharmacol*. 2015 Aug 15;761:211-6.
64. Qin T, Yin Y, Yu Q, Yang Q. Bursopentin (BP5) protects dendritic cells from lipopolysaccharide-induced oxidative stress for immune suppression. 2015 Feb 6;10(2):e0117477.
65. Yu Z, Tang L, Chen L, Li J, Wu W, Hu C. Capillarisin Suppresses

- Lipopolysaccharide-Induced Inflammatory Mediators in BV2 Microglial Cells by Suppressing TLR4-Mediated NF- κ B and MAPKs Signaling Pathway. 2015 Jun;40(6):1095-101.
6. Wang Y, Yang L, Yang D. Tanshinone IIA Rescued the Impairments of Primary Hippocampal Neurons Induced by BV2 Microglial Over-Activation. *Neurochem Res.* 2015 Jul;40(7):1497-508.
 7. Sun X, Jiang C, Ma L, Zhao X, Chang J, Zheng B, Li L, Xie W, Li X. 3 β -Angelyoxy-8 β ,10 β -dihydroxyeremophila-7(11)-en- Δ 8 α -lactone Inhibits Lipopolysaccharide-Induced Nitric Oxide Production in RAW264.7 Cells. *Biol Pharm Bull.* 2015;38(6):836-43.
 8. Zhang H, Yan J, Zhuang Y, Han G. Anti-inflammatory effects of farrerol on IL-1 β -stimulated human osteoarthritis chondrocytes. *Eur J Pharmacol.* 2015 Oct 5;764:443-7.
 9. Wu C, Zhao W, Zhang X, Chen X. Neocryptotanshinone inhibits lipopolysaccharide-induced inflammation in RAW264.7 macrophages by suppression of NF- κ B and iNOS signaling pathways. *Acta Pharm Sin B.* 2015 Jul;5(4):323-9.
 10. Huang Z, Gao C, Chi X, Hu YW, Zheng L, Zeng T, Wang Q. IL-37 Expression is Upregulated in Patients with Tuberculosis and Induces Macrophages Towards an M2-like Phenotype. *Scand J Immunol.* 2015 Oct;82(4):370-9.
 11. Zhu F, Li X, Jiang Y, Zhu H, Zhang H, Zhang C, Zhao Y, Luo F. GdCl3 suppresses the malignant potential of hepatocellular carcinoma by inhibiting the expression of CD206 in tumor associated macrophages. *Oncol Rep.* 2015 Nov;34(5):2643-55.
 12. Liu B, Xu C, Wu X, Liu F, Du Y, Sun J, Tao J, Dong J. Icarin exerts an antidepressant effect in an unpredictable chronic mild stress model of depression in rats and is associated with the regulation of hippocampal neuroinflammation. *Neuroscience.* 2015 May 21;294:193-205.
 13. Gao Z, Liu K, Tian W, Wang H, Liu Z, Li Y, Li E, Liu C, Li X, Hou R, Yue C, Wang D, Hu Y. Effects of selenizing angelica polysaccharide and selenizing garlic polysaccharide on immune function of murine peritoneal macrophage. *Int Immunopharmacol.* 2015 Jul;77(1):104-9.
 14. Yu H, Lu Y, Qiao X, Wei L, Fu T, Cai S, Wang C, Liu X, Zhong S, Wang Y. Novel Cathelicidins from Pigeon Highlights Evolutionary Convergence in Avian Cathelicidins and Functions in Modulation of Innate Immunity. *Sci Rep.* 2015 Jul 21;5:11082.
 15. Liu HB, Zhang J, Sun YY, Li XY, Jiang S, Liu MY, Shi J, Song BL, Zhao D, Ma HP, Zhang ZR. Dietary salt regulates epithelial sodium channels in rat endothelial cells: adaptation of vasculature to salt. *Br J Pharmacol.* 2015 Dec;172(23):5634-46.
 16. Li CY, Li X, Liu SF, Qu WS, Wang W, Tian DS. Inhibition of mTOR pathway restrains astrocyte proliferation, migration and production of inflammatory mediators after oxygen-glucose deprivation and reoxygenation. *Neurochem Int.* 2015 Apr-May;83-84:9-18.
 17. He JM, Chen SC, Li RP, Yuan LX, Bao JM, Guo ML. Suppression of nuclear factor-kappa B and mitogen-activated protein kinase signalling pathways by goshonoside-F5 extracted from Rubi Fructus. *Int Immunopharmacol.* 2015 Feb;74(2):182-90.
 18. Zhang X, Wang J, Qian W, Zhao J, Sun L, Qian Y, Xiao H. Dexmedetomidine inhibits inducible nitric oxide synthase in lipopolysaccharide-stimulated microglia by suppression of extracellular signal-regulated kinase. *Neurol Res.* 2015 Mar;37(3):238-45.
 19. Shan Y, Lu X, Han Y, Li X, Wang X, Shao C, Wang L, Liu Z, Tang W, Sun Y, Jia J. Helicobacter pylori Outer Membrane Protein 18 (Hp1125) Is Involved in Persistent Colonization by Evading Interferon- γ Signaling. *Biomed Res Int.* 2015;2015:571280.
 20. Lou T, Jiang W, Xu D, Chen T, Fu Y. Inhibitory Effects of Polydatin on Lipopolysaccharide-Stimulated RAW 264.7 Cells. *Inflammation.* 2015; 38(3):1213-20.
 21. Cai X, Li X, Li L, Huang XZ, Liu YS, Chen L, Zhang K, Wang L, Li X, Song J, Li S, Zhang Y, Zhang M. Adiponectin reduces carotid atherosclerotic plaque formation in ApoE-/- mice: roles of oxidative and nitrosative stress and inducible nitric oxide synthase. *Mol Med Rep.* 2015 Mar;11(3):1715-21.
 22. Bo R, Ma X, Feng Y, Zhu Q, Huang Y, Liu Z, Liu C, Gao Z, Hu Y, Wang D. Optimization on conditions of Lycium barbarum polysaccharides liposome by RSM and its effects on the peritoneal macrophages function. 2015 Mar 6;117:215-22.
 23. Wei L, Gao J, Zhang S, Wu S, Xie Z, Ling G, Kuang YQ, Yang Y, Yu H, Wang Y. Identification and Characterization of the First Cathelicidin from Sea Snakes with Potent Antimicrobial and Anti-inflammatory Activity and Special Mechanism. *J Biol Chem.* 2015 Jul 3; 290(27):16633-52.
 24. Zhao H, Zhao M, Wang Y, Li F, Zhang Z. Glycyrrhizic Acid Prevents Sepsis-Induced Acute Lung Injury and Mortality in Rats. *J Histochem Cytochem.* 2016 Feb;64(2):125-37.
 25. Wu ZT, Ren CZ, Yang YH, Zhang RW, Sun JC, Wang YK, Su DF, Wang WZ. The PI3K signaling-mediated nitric oxide contributes to cardiovascular effects of angiotensin-(1-7) in the nucleus tractus solitarius of rats. *Nitric Oxide.* 2016 Jan 30;52:56-65.
 26. Wang K, Fu XY, Fu XT, Hou YJ, Fang J, Zhang S, Yang MF, Li DW, Mao LL, Sun JY, Yuan H, Yang XY, Fan CD, Zhang ZY, Sun BL. DSePA Antagonizes High Glucose-Induced Neurotoxicity: Evidences for DNA Damage-Mediated p53-Phosphorylation and MAPKs and AKT Pathways. *Mol Neurobiol.* 2016 Sep;53(7):4363-74.
 27. Wang K, Fu XT, Li Y, Hou YJ, Yang MF, Sun JY, Yi SY, Fan CD, Fu XY, Zhai J, Sun BL. Induction of S-Phase Arrest in Human Glioma Cells by Selenocysteine, a Natural Selenium- Containing Agent Via Triggering Reactive Oxygen Species-Mediated DNA Damage and Modulating MAPKs and AKT Pathways. *Neurochem Res.* 2016 Jun;41(6):1439-47.
 28. Liu D, Cao G, Han L, Ye Y, SiMa Y, Ge W. Flavonoids from Radix Tetrastigmae inhibit TLR4/MD-2 mediated JNK and NF- κ B pathway with anti-inflammatory properties. *Cytokine.* 2016 Aug;84:29-36.
 29. Ishag HZ, Wu YZ, Liu MJ, Xiong QY, Feng ZX, Yang RS, Shao GQ. In vitro protective efficacy of Lithium chloride against Mycoplasma hyopneumoniae infection. *Res Vet Sci.* 2016 Jun;106:93-6.
 30. Yang W, Yan A, Zhang T, Shao J, Liu T, Yang X, Xia W, Fu Y. Thromboxane A2 Receptor Stimulation Enhances Microglial Interleukin-1 β and NO Biosynthesis Mediated by the Activation of ERK Pathway. *Front Aging Neurosci.* 2016 Jan 29;8:8.
 31. Xie X, Han M, Zhang L, Liu L, Gu Z, Yang M, Yang H. Effects of *Mycobacterium tuberculosis* ESAT6-CFP10 Protein on Cell Viability and Production of Nitric Oxide in Alveolar Macrophages. *Jundishapur J Microbiol.* 2016 May 30;9(6):e33264.
 32. Xu L, He S, Yin P, Li D, Mei C, Yu X, Shi Y, Jiang L, Liu F. Punicalagin induces Nrf2 translocation and HO-1 expression via PI3K/Akt, protecting rat intestinal epithelial cells from oxidative stress. *Int J Hyperthermia.* 2016 Aug;32(5):465-73.
 33. Shen X, Wang M, Bi X, Zhang J, Wen S, Fu G, Xia L. Resveratrol prevents endothelial progenitor cells from senescence and reduces the oxidative reaction via PPAR γ /HO 1 pathways. *Mol Med Rep.* 2016 Dec;14(6):5528-5534.
 34. Li R, Liu Y, Chen N, Zhang Y, Song G, Zhang Z. Valproate Attenuates Nitroglycerin-Induced Trigeminovascular Activation by Preserving Mitochondrial Function in a Rat Model of Migraine. *Med Sci Monit.* 2016 Sep 12;22:3229-37.
 35. Song LJ, Luo H, Fan WH, Wang GP, Yin XR, Shen S, Wang J, Jin Y, Zhang W, Gao H, Liu Q, Wang WL, Feng B, Yu CX. Oxadiazole-2-oxides may have other functional targets, in addition to SjTGR, through which they cause mortality in *Schistosoma japonicum*. *Parasit Vectors.* 2016 Jan 20;9:26.
 36. Chen S, Zhang L, Xu R, Ti Y, Zhao Y, Zhou L, Zhao J. BDKRB2 +9/-9 bp polymorphisms influence BDKRB2 expression levels and NO production in kneeosteoarthritis. *Exp Biol Med (Maywood).* 2017 Feb;242(4):422-428.
 37. Yan H, Li Y, Yang Y, Zhang Z, Zhang G, Sun Y, Yu P, Wang Y, Xu L. Protective effects of andrographolide derivative AL-1 on high glucose-induced oxidative stress in RIN-mcells. *Curr Pharm Des.* 2016;22(4):499-505.
 38. Zhang M, Wang Y, Qian F, Li P, Xu X. Hypericin inhibits oligomeric amyloid β 42-induced inflammation response in microglia and ameliorates cognitive deficits in an amyloid β injection mouse model of Alzheimer's disease by suppressing MKL1. *Biochem Biophys Res Commun.* 2016 Dec 2;481(1-2):71-76.
 39. Yan H, Li Y, Yang Y, Zhang Z, Zhang G, Sun Y, Yu P, Wang Y, Xu L. Protective effects of andrographolide derivative AL-1 on high glucose-induced oxidative stress in RIN-mcells. *Curr Pharm Des.* 2016;22(4):499-505.
 40. Li C, Wang J, Wang Q, Zhang Y, Zhang N, Lu L, Wu Y, Zhang Q, Wang W, Wang Y, Tu P. Qishen granules inhibit myocardial inflammation injury through regulating arachidonic acid metabolism. *Sci Rep.* 2016 Nov 11;6:36949.
 41. Luo Z, Zhu W, Guo Q, Luo W, Zhang J, Xu W, Xu J. Weaning Induced Hepatic Oxidative Stress, Apoptosis, and Aminotransferases through MAPK Signaling Pathways in Piglets. *Oxid Med Cell Longev.* 2016; 2016:4768541.
 42. Xin Y, Wei J, Chunhua M, Danhong Y, Jianguo Z, Zongqi C, Jian-An

- B. Protective effects of Ginsenoside Rg1 against carbon tetrachloride-induced liver injury in mice through suppression of inflammation. *Phytomedicine*. 2016 Jun;123(6):583-8.
- 103.Zhai T, Sun Y, Li H, Zhang J, Huo R, Li H, Shen B, Li N. Unique immunomodulatory effect of paeoniflorin on type I and II macrophages activities. *J Pharmacol Sci*. 2016 Mar;130(3):143-50.
- 104.Ma W, Zhang Y, Ding YY, Liu F, Li N. Cytotoxic and anti-inflammatory activities of phenanthrenes from the medullae of *Juncus effusus* L. *Arch Pharm Res*. 2016 Feb;39(2):154-60.
- 105.Shang Q, Bao L, Guo H, Hao F, Luo Q, Chen J, Guo C. Contribution of glutaredoxin-1 to S-glutathionylation of endothelial nitric oxide synthase for mesenteric nitric oxide generation in experimental necrotizing enterocolitis. *Transl Res*. 2016 Jan 18. pii: S1931-5244(16)00023-2.
- 106.Chen W, Xia J, Hu P, Zhou F, Chen Y, Wu J, Lei W, Shen Z. Follistatin-like 1 protects cardiomyoblasts from injury induced by sodium nitroprusside through modulating Akt and Smad1/5/9 signaling. *Biochem Biophys Res Commun*. 2016 Jan 15;469(3):418-23.
- 107.Lv X, Chen D, Yang L, Zhu N, Li J, Zhao J, Hu Z, Wang FJ, Zhang LW. Comparative studies on the immunoregulatory effects of three polysaccharides using high content imagingsystem. *Int J Biol Macromol*. 2016 May;86:28-42.
- 108.Wu J, Liu K, Shi X. The anti-inflammatory activity of several flavonoids isolated from *Murraya paniculata* on murine macrophagecell line and gastric epithelial cell (GES-1). *Pharm Biol*. 2016;54(5):868-81.
- 109.Huang K, Li Y, Tao S, Wei G, Huang Y, Chen D, Wu C. Purification, Characterization and Biological Activity of Polysaccharides from *Dendrobium officinale*. *Molecules*. 2016 May 30;21(6). pii: E701.
- 110.Li Y, Xiao Y, Yin Z. Enhanced Anti-Inflammatory Efficacy Through Targeting to Macrophages: Synthesis and In Vitro Evaluationof Folate-Glycine-Celecoxib. *AAPS PharmSciTech*. 2016 May 25. [Epub ahead of print]
- 111.Huang Q, Wang T, Wang HY. Ginsenoside Rb2 enhances the anti-inflammatory effect of ω-3 fatty acid in LPS-stimulated RAW264.7macrophages by upregulating GPR120 expression. *Acta Pharmacol Sin*. 2017 Feb;38(2):192-200.
- 112.Feng M, Dai M, Cao W, Tan Y, Li Z, Shi M, Zhang X. ALV-J strain SCAU-HN06 induces innate immune responses in chicken primary monocyte-derivedmacrophages. *Poult Sci*. 2017 Jan 1;96(1):42-50.
- 113.Yang X, Huo F, Liu B, Liu J, Chen T, Li J, Zhu Z, Lv B. Crocin Inhibits Oxidative Stress and Pro-inflammatory Response of Microglial Cells Associated with Diabetic Retinopathy Throughthe Activation of PI3K/Akt Signaling Pathway. *J Mol Neurosci*. 2017 Apr;61(4):581-589.
- 114.Liu M, Du G, Liu B, Hu Y, Liu J, Jia Y, Minion FC, Shao G, Zhao R. Cholesterol exacerbates Mycoplasma hyopneumoniae-induced apoptosis via stimulatingproliferation and adhesion to porcine alveolar macrophages. *Vet Microbiol*. 2017 Nov;211:112-118.
- 115.Liu F, Zhang X, Ling P, Liao J, Zhao M, Mei L, Shao H, Jiang P, Song Z, Chen Q, Wang F. Immunomodulatory effects of xanthan gum in LPS-stimulated RAW 264.7 macrophages. *Carbohydr Polym*. 2017 Aug 1;169:65-74.
- 116.He HQ, Wu YX, Nie YJ, Wang J, Ge M, Qian F. LYRM03,an ubenimex derivative, attenuates LPS-induced acute lung injury in mice by suppressing the TLR4 signaling pathway. *Acta Pharmacol Sin*. 2017 Mar;38(3):342-350.
- 117.Weng P, Zhang XT, Sheng Q, Tian WF, Chen JL, Yuan JJ, Zhang JR, Pang QF. Caveolin-1 scaffolding domain peptides enhance anti-inflammatory effect of heme oxygenase-1 through interrupting its interact with caveolin-1. *Oncotarget*. 2017 Jun 20;8(25):40104-40114.
- 118.Deng Q, Zhang J, Gao Y, She X, Wang Y, Wang Y, Ge X. MLN4924 protects against bleomycin-induced pulmonary fibrosis by inhibiting the earlyinflammatory process. *Am J Transl Res*. 2017 Apr 15;9(4):1810-1821.
- 119.Zhou ZY, Xu JQ, Zhao WR, Chen XL, Jin Y, Tang N, Tang JY. Ferulic acid relaxed rat aortic, small mesenteric and coronary arteries by blocking voltage-gatedcalcium channel and calcium desensitization via dephosphorylation of ERK1/2 and MYPT1. *Eur J Pharmacol*. 2017 Nov 15;815:26-32.
- 120.Xu B, Zhang P, Li W, Liu R, Tang J, Fan H. hsdS, Belonging tothe Type I Restriction-Modification System, Contributes tothe Streptococcus suis Serotype 2 Survival Ability in Phagocytes. *Front Microbiol*. 2017 Aug 9;8:1524.
- 121.Han D, Chen W, Gu X, Shan R, Zou J, Liu G, Shahid M, Gao J, Han B. Cytoprotective effect of chlorogenic acid against hydrogen peroxide-induced oxidative stress in MC3T3-E1 cells through PI3K/Akt-mediated Nrf2/HO-1 signaling pathway. *Oncotarget*. 2017 Feb 28;8(9):14680-14692.
- 122.Qiu M, Ke L, Zhang S, Zeng X, Fang Z, Liu J. JS-K,a GST-activated nitric oxide donor prodrug, enhances chemo-sensitivity in renal carcinomacells and prevents cardiac myocytes toxicity induced by Doxorubicin. *Cancer Chemother Pharmacol*. 2017 Aug;80(2):275-286.
- 123.Pan H, Xie Y, Zhang Z, Li K, Hu D, Zheng X, Tang T. Immunomodulation effect ofa hierarchical macropore/nanosurface on osteogenesis and angiogenesis. *Biomed Mater*. 2017 Jul 4;12(4):045006.
- 124.Xue J, Yu C, Sheng W, Zhu W, Luo J, Zhang Q, Yang H, Cao H, Wang W, Zhou J, Wu J, Cao P, Chen M, Ding WQ, Cao J, Zhang S. The Nrf2/GCH1/BH4 Axis Ameliorates Radiation-InducedSkin Injury by Modulating the ROSCascade. *J Invest Dermatol*. 2017 Oct;137(10):2059-2068.
- 125.Wu W, Hou CL, Mu XP, Sun C, Zhu YC, Wang MJ, Lv QZ. H2S Donor NaHS Changes the Production of Endogenous H2S andNOin D-Galactose-InducedAccelerated Ageing. *Oxid Med Cell Longev*. 2017;2017:5707830.
- 126.Wang S, Zhang Z, Wang Y, Gadah JA, Xie Q, Xu L, Yan R, Song X, Li X. Toxoplasma gondii excretory/secretory antigens (TgESAs) suppress pro-inflammatory cytokinesecretion by inhibiting TLR-induced NF- κ B activation in LPS-stimulated murine macrophages. *Oncotarget*. 2017 Jul 18;8(51):88351-88359.
- 127.Deng W, Zhu Y, Lin J, Zheng L, Zhang C, Luo M. Inhibition of soluble epoxide hydrolase lowers portal hypertension in cirrhotic rats by ameliorating endothelial dysfunction and liver fibrosis. *Prostaglandins Other Lipid Mediat*. 2017 Jul;131:67-74.
- 128.Wang Y, Wen Y, Wang S, Ehsan M, Yan R, Song X, Xu L, Li X. Modulation of goat monocyte function by HCyst-2, a secreted cystatin from Haemonchuscontortus. *Oncotarget*. 2017 Jul 4;8(27):44108-44120.
- 129.Wang Y, Lu M, Wang S, Ehsan M, Yan R, Song X, Xu L, Li X. Characterization ofa secreted macrophage migration inhibitory factor homologue ofthe parasiticnematode Haemonchus Contortus acting at the parasite-host cell interface. *Oncotarget*. 2017 Jun 20;8(25):40052-40064.
- 130.Dang D, Zhang C, Zhang R, Wu W, Chen S, Ren J, Zhang P, Zhou G, Feng D, Sun T, Li Y, Liu Q, Li M, Xi Y, Jin Y, Duan G. Involvement of inducible nitric oxide synthase and mitochondrial dysfunction inthe pathogenesis of enterovirus 71 infection. *Oncotarget*. 2017 Sep 23;8(46):81014-81026.
- 131.Fu J, Zong G, Zhang P, Gu Y, Cao G. Deletion ofthe β -Propeller Protein Gene Rv1057 Reduces ESAT-6 Secretion and IntracellularGrowth of *Mycobacterium tuberculosis*. *Curr Microbiol*. 2017 Nov 13.
- 132.Wang Y, Wu L, Liu X, Wang S, Ehsan M, Yan R, Song X, Xu L, Li X. Characterization of a secreted cystatin of the parasitic nematode Haemonchus contortus and its immune-modulatory effect on goat monocytes. *Parasit Vectors*. 2017 Sep 18;10(1):425.
- 133.Liu Y, Wang Y, Hu Y, Ge S, Li K, Wang S, Li L. The apoptotic inducible effects of salicylic acid on hepatoma cell line: relationship with nitricoxide signaling. *J Cell Commun Signal*. 2017 Sep;11(3):245-253.
- 134.Yang L, Cong HL, Wang SF, Liu T. AMP-activated protein kinase mediates the effects of lipoprotein-associated phospholipase A2 on endothelial dysfunction in atherosclerosis. *Exp Ther Med*. 2017 Apr;13(4):1622-1629.
- 135.Chen R, Gong P, Tao T, Gao Y, Shen J, Yan Y, Duan C, Wang J, Liu X. O-GlcNAc Glycosylation of nNOS Promotes Neuronal Apoptosis Following GlutamateExcitotoxicity. *Cell Mol Neurobiol*. 2017 Nov;37(8):1465-1475.
- 136.Zhou Q, Sun Y, Tan W, Liu X, Qian Y, Ma X, Wang T, Wang X, Gao X. Effect of Shenmai injection on preventing the development of nitroglycerin-induced tolerance in rats. *PLoS One*. 2017 Apr 28;12(4):e0176777.
- 137.Zhao Y, Wang L, He S, Wang X, Shi W. Nitric oxide synthesis-promoting effects of valsartan in human umbilical vein endothelial cells via the Akt/adenosine monophosphate-activated protein kinase/endothelial nitric oxide synthase pathway. *Bosn J Basic Med Sci*. 2017 May 20;17(2):132-137.
- 138.Liu RT, Zhang M, Yang CL, Zhang P, Zhang N, Du T, Ge MR, Yue LT, Li XL, Li H, Duan RS. Enhanced glycolysis contributes tothe pathogenesis of experimental autoimmune neuritis. *J Neuroinflammation*. 2018 Feb 21;15(1):51.
- 139.Wu YX, He HQ, Nie YJ, Ding YH, Sun L, Qian F. Protostemonine effectively attenuates lipopolysaccharide-induced acute lung injury in

- mice. *Acta Pharmacol Sin.* 2018 Jan;39(1):85-96.
- 140.Li Y, Yuan J, Wang Q, Sun L, Sha Y, Li Y, Wang L, Wang Z, Ma Y, Cao H. The collective influence of 1, 25-dihydroxyvitamin D3 with physiological fluid shear stress on osteoblasts. *Steroids.* 2018 Jan;129:9-16.
- 141.Zhi X, Lv J, Wei Y, Du P, Chang Y, Zhang Y, Gao Y, Wu R. Foot-and-mouthdiseasevirus infection stimulates innate immune signaling in the mouse macrophage RAW 264.7 cells. *Can J Microbiol.* 2018 Feb;64(2):155-166.
- 142.He D, Zhao M, Wu C, Zhang W, Niu C, Yu B, Jin J, Ji L, Willard B, Mathew AV, Chen YE, Pennathur S, Yin H, He Y, Pan B, Zheng L. Apolipoprotein A-1 mimetic peptide 4F promotes endothelial repairing and compromisesreendothelialization impaired by oxidized HDL through SR-B1. *Redox Biol.* 2018 May;15:228-242.
- 143.Gong G, Dang T, Deng Y, Han J, Zou Z, Jing S, Zhang Y, Liu Q, Huang L, Wang Z. Physicochemical properties and biological activities of polysaccharides from Lycium barbarumprepared by fractional precipitation. *Int J Biol Macromol.* 2018 Apr 1;109:611-618.
- 144.Gong G, Dang T, Deng Y, Han J, Zou Z, Jing S, Zhang Y, Liu Q, Huang L, Wang Z. Physicochemical properties and biological activities of polysaccharides from Lycium barbarumprepared by fractional precipitation. *Mol Med Rep.* 2018 Apr;17(4):4925-4932.
- 145.Pan Q,Zheng J,Du D,Liao X,Ma C,Yang Y,Chen Y,Zhong W,Ma X.MicroRNA-126 Priming Enhances Functions of Endothelial Progenitor Cells under Physiological and Hypoxic Conditions and Their Therapeutic Efficacy in Cerebral Ischemic Damage.*Stem Cells Int.* 2018 Apr 11;2018:2912347.
- 146.Zhang D,Li X,Hu Y,Jiang H,Wu Y,Ding Y,Yu K,He H,Xu J,Sun L,Qian FTabersonine attenuates lipopolysaccharide-induced acute lung injury via suppressing TRAF6 ubiquitination.*Biochem Pharmacol.* 2018 Aug;154:183-192.
147. Lin Y,Tang G,Jiao Y,Yuan Y,Zheng Y,Chen Y,Xiao J,Li C,Chen Z,Cao P_{Propionibacterium acnes} Induces Intervertebral Disc Degeneration by Promoting iNOS/NO and COX-2/PGE2 Activation via the ROS-Dependent NF- κ B Pathway.*Oxid Med Cell Longev.* 2018 Aug 19;2018:3692752.
- 148.Wu H,Pang H,Chen Y,Huang L,Liu H,Zheng Y,Sun C,Zhang G,Wang GAnti-Inflammatory Effect of a Polyphenol-Enriched Fraction from Acalypha wilkesiana on Lipopolysaccharide-Stimulated RAW 264.7 Macrophages and Acetaminophen-Induced Liver Injury in Mice.*Oxid Med Cell Longev.* 2018 Aug 7;2018:7858094.
149. Luo Z,Luo W,Li S,Zhao S,Sho T,Xu X,Zhang J,Xu W,Xu JReactive oxygen species mediated placental oxidative stress, mitochondrial content, and cell cycle progression through mitogen-activated protein kinases in intrauterine growth restricted pigs.*Reprod Biol.* 2018 Dec;18(4):422-431.
- 150.Wang Z,Zhou Y,Yu Y,He K,Cheng LMLipopolysaccharide preconditioning increased the level of regulatory B cells in the spleen after acute ischaemia/reperfusion in mice.*Brain Res.* 2018 Dec 15;1701:46-57.
- 151.Chen R,Liu D,Guo P,Lin WVaricuothiols A and B, New Fungal Metabolites from *Aspergillus versicolor* with Anti-Inflammatory Activities.*Chem Biodivers.* 2018 Jan;15(1).
152. Wu YX,He HQ,Nie YJ,Ding YH,Sun L,Qian FProtostemonine effectively attenuates lipopolysaccharide-induced acute lung injury in mice.*Acta Pharmacol Sin.* 2018 Jan;39(1):85-96.
- 153.Li Y,Yuan J,Wang Q,Sun L,Sha Y,Li Y,Wang L,Wang Z,Ma Y,Cao HThe collective influence of 1, 25-dihydroxyvitamin D3 with physiological fluid shear stress on osteoblasts.*Steroids.* 2018 Jan;129:9-16.
- 154.Hu Q,Du H,Ma G,Pei F,Ma N,Yuan B,Nakata PA,Yang WPurification, identification and functional characterization of an immunomodulatory protein from *Pleurotus eryngii*.*Food Funct.* 2018 Jul 17;9(7):3764-3775.
- 155.Shi Y,Wang H,Yan Y,Cao H,Liu X,Lin F,Lu JGlycerol-3-Phosphate Shuttle Is Involved in Development and Virulence in the Rice Blast Fungus Pyricularia oryzae.*Front Plant Sci.* 2018 May 23;9:687
- 156.Luo J,Wei D,Li D,Wang LNitric oxide functions in stromal cell-derived factor-1-induced cytoskeleton changes and the migration of Jurkat cells.*Oncol Lett.* 2018 Nov;16(5):6685-6690..
- 157.Jin LG,Zeng S,Sun XQ,Wu C,Chen JL,Cui M,Pang QFDelition 101 residue at caveolin-1 scaffolding domain peptides impairs the ability of increasing heme oxygenase-1 activity.*Int Immunopharmacol.* 2018 Oct;63:137-144.
- 158.Yu Z,Dong L,Jiang Z,Yi K,Zhang J,Zhang Z,Zhu Z,Wu Y,Xu M,Ni JA semi-dominant mutation in a CC-NB-LRR-type protein leads to a short-root phenotype in rice.*Rice (N Y)* . 2018 Oct 3;11(1):54.

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