

全国中文核心期刊 中国科技核心期刊 中国农业核心期刊
美国化学文摘收录期刊 RCCSE中国核心学术期刊 (A)

ISSN 1671-7236
CN 11-4843/S

中国畜牧兽医

CHINA ANIMAL HUSBANDRY &
VETERINARY MEDICINE

第44卷 第6期
Vol. 44 No.6

2017



主管：中华人民共和国农业部
主办：中国农业科学院北京畜牧兽医研究所

目 次

· 前 沿 综 述 ·

线粒体融合、分裂及其相关疾病的研究进展 韩雨轩, 庞欣茹, 吴月红, 等(1571)

· 生 物 技 术 ·

山羊 *CMKLR1* 基因的克隆、表达及其与肌内脂肪的相关性研究 廖红海, 林亚秋, 朱江江, 等(1580)

猪脑心肌炎病毒非结构蛋白 3C 的原核表达及生物信息学分析 罗亚坤, 梁 琳, 朱 禹, 等(1588)

猪 *JHDM2A* 基因的克隆及表达分析 宋延霞, 吴大平, 李海艳, 等(1596)

Marc145 细胞源 *LSm1* 基因的巢式 PCR 扩增及生物信息学分析 陈绍品, 林汉卿, 温贵兰, 等(1604)

细菌多糖的生物合成机制研究进展 王 浩, 卢天成, 王 岩, 等(1613)

6 株猪流行性腹泻病毒贵州株 S 基因序列分析 毛黎红, 张双翔, 周碧君, 等(1621)

猪繁殖与呼吸综合征病毒 RT-LAMP 快速检测方法的建立 陈希文, 汪 谦, 尹 苗, 等(1630)

版纳微型猪近交系 *TSARG7* 基因克隆及功能生物信息学分析 王淑燕, 张 霞, 霍金龙, 等(1637)

托佩克猪 *SLA-1-632-TPK* 基因的矫正及重组质粒 *SLA-1-TPK/pMD19-T* 的构建
..... 翟晓鑫, 高 花, 韩 勇, 等(1645)

不同海拔地区警犬血液生化指标检测分析 冯艳伟, 万忠义, 廖婉露, 等(1652)

· 动物营养与饲料科学 ·

日粮能量及蛋白质水平对滩羊糖类转运载体 mRNA 表达的影响 卢艳娟, 王小芳, 曾 洁, 等(1657)

菌制剂和酶制剂处理小麦秸秆对肉用绵羊生长性能和屠宰性能的影响
..... 冯文晓, 陶 莲, 王玉荣, 等(1666)

日粮中添加酵母培养物对肉仔鸡生长性能、肉品质和肠道菌群的影响 郭小华, 刘 明, 李文辉, 等(1673)

“豫粉 1 号”配套系商品代蛋鸡产蛋率曲线拟合及蛋品质分析 李鸿飞, 宋亚伊, 田亚东, 等(1680)

添喂两种植物雌激素对奶牛乳成分、血液生化指标和抗氧化性能的影响
..... 李 琮, 臧长江, 刘亚伟, 等(1688)

有机硒与维生素 E 对肉仔鸡肉质性状、血液生化指标及抗氧化指标的影响
..... 高爱琴, 朱玉霞, 雷振华, 等(1694)

日粮中添加芦苇对育肥期和田羊生长性能及表观消化率的影响 袁 芳, 郭同军, 张俊瑜, 等(1701)

萨福克羔羊 0~65 日龄生长发育规律研究 何军敏, 臧长江, 黄锡霞, 等(1707)

巴氏初乳对犊牛生长性能及胃肠道发育的影响 刘根涛, 卜登攀, 赵连生, 等(1714)

枯草芽孢杆菌对断奶仔猪生长性能和血清生化指标的影响·····	魏立民,孙瑞萍,刘海隆,等(1720)
不同糖源对肉用犊牛生长性能、体尺指数及营养物质表观消化率的影响 ·····	杨 亮,张文举,张晓羊,等(1726)
· 遗 传 繁 育 ·	
中国 6 个双峰驼群体微卫星遗传多样性分析·····	柏 丽,周俊文,李新海,等(1734)
皮特兰猪生长发育规律及其生长曲线拟合分析·····	张金山,武群清,张跃博,等(1746)
宁夏地区荷斯坦奶牛遗传参数估计·····	李 欣,周靖航,温 万,等(1754)
70 周龄长顺绿壳蛋鸡 <i>HO-1</i> 基因在不同组织中表达差异研究 ·····	卜小雁,李 辉,施晓丽,等(1762)
粤北地区新生仔猪腹泻病原学调查及 PEDV <i>ORF3</i> 基因分子特征和遗传变异分析 ·····	南文金,胡鸿惠,吴静波,等(1769)
绵羊 <i>MyoG</i> 基因外显子 1 的多态性及其与肉质性状的关联分析 ·····	白俊艳,杨又兵,王玉琴,等(1778)
纯种和牛快速扩繁关键技术研究·····	毕江华,冯春涛,李素霞,等(1784)
<i>CD46</i> 基因在新疆褐牛不同组织中的表达研究 ·····	木哈买提江·铁格斯,张慧敏,宋焕堂,等(1790)
· 预 防 兽 医 ·	
猪繁殖与呼吸综合征病毒 NSP2 抗原表位区的原核表达及免疫原性分析 ·····	胡 荣,白伟杰,王治家,等(1796)
猪源大肠杆菌 O157:H7 毒力差异株的转录组测序分析 ·····	彭 昊,李 军,杨 威,等(1804)
奶牛乳房炎病原菌诊断技术研究进展·····	王 丹,杨 峰,李新圃,等(1811)
猪 A 型口蹄疫病毒特异性 IgA 抗体间接 ELISA 检测方法的建立与初步应用 ·····	王园园,潘 丽,吕建亮,等(1818)
广东地区健康猪群和发病猪群猪链球菌流行病学调查分析·····	刘 琪,王 娟,周如月,等(1825)
辽宁地区奶牛乳房炎源大肠杆菌毒力基因及耐药基因检测分析·····	姚 伟,高 锋,曹明慧,等(1832)
基因Ⅶ型新城疫病毒 F 蛋白在昆虫细胞中的表达及免疫效力研究 ·····	孙 朋(1840)
· 基 础 兽 医 ·	
数字 RT-PCR 技术检测 H3N2 亚型猪流感病毒方法的建立 ·····	唐连飞,禹思宇,周 宇(1847)
氟苯尼考- α -羟丙基- β -环糊精包合物的研制 ·····	杨宝亭,王庚南,黄康东,等(1854)
伊维菌素微乳中伊维菌素的含量测定方法研究·····	王嗣涵,张继瑜,邢守叶,等(1861)
几种兽用合成抗菌药基于抗体快速检测技术研究进展·····	韩肖亚,陈冬梅,王玉莲,等(1869)
益生菌发酵提高黄芪根、茎、叶活性成分含量的研究·····	苏贵龙,张景艳,张 凯,等(1877)
结核分枝杆菌耐药机制与检测技术研究进展 ·····	刘永安,李学瑞,刘永生(1884)
黄芩苷对大肠杆菌细胞通透性的影响·····	刘 昊,赵自冰,吴丹丹,等(1890)

CHINA ANIMAL HUSBANDRY & VETERINARY MEDICINE

Vol. 44 No. 6 (June, 2017)

SELECTED CONTENTS

Research progress on the mitochondrial fusion, fission and their effects on disease
..... HAN Yu-xuan,PANG Xin-ru,WU Yue-hong,et al(1571)

Cloning and expression of *CMKLR1* gene and its correlation with intramuscular fat in goat (*Capra hirus*)
..... LIAO Hong-hai,LIN Ya-qiu,ZHU Jiang-jiang,et al(1580)

Prokaryotic expression and bioinformatics analysis of nonstructure protein 3C from porcine
encephalomyocarditis virus LUO Ya-kun,LIANG Lin,ZHU Yu,et al(1588)

Cloning and expression analysis of porcine *JHDM2A* gene
..... SONG Yan-xia, WU Da-ping, LI Hai-yan,et al(1596)

Nested PCR amplification and bioinformatics analysis of *LSm1* gene from marc145 cells
..... CHEN Shao-pin,LIN Han-qing,WEN Gui-lan,et al(1604)

Advances on the biosynthesis mechanism of bacterial polysaccharides
..... Wang Hao,Lu Tian-cheng, Wang Yan,et al(1613)

Sequence analysis of S gene of 6 strains of porcine epidemic diarrhea virus from Guizhou
..... MAO Li-hong,ZHANG Shuang-xiang,ZHOU Bi-jun,et al(1621)

Establishment of RT-LAMP for rapid detection of porcine reproductive and respiratory syndrome virus
..... CHEN Xi-wen,WANG Qian,YIN Miao,et al(1630)

Cloning and functional bioinformatics analysis of *TSARG7* gene in Banna Mini-pig inbred line
..... WANG Shu-yan, ZHANG Xia, HUO Jin-long,et al(1637)

Correction of the mutant *SLA-1-632-TPK* gene from ToPigs pig and construction of SLA-1-TPK/
pMD19-T recombinant plasmid ZHAI Xiao-xin, GAO Hua, HAN Yong,et al(1645)

Determination and analysis of blood biochemical indexes of police dogs in different altitudes
..... FENG Yan-wei,WAN Zhong-yi,LIAO Wan-lu,et al(1652)

Effects of diets with different energy and protein levels on mRNA expression of glucose transporters in
Tan sheep LU Yan-juan,WANG Xiao-fang,ZENG Jie,et al(1657)

Effects of bacteria and enzyme treatments of wheat straw on growth performance and slaughter
performance of mutton sheep FENG Wen-xiao,TAO Lian,WANG Yu-rong,et al(1666)

Effects of yeast culture on growth performance,meat quality and intestinal microflora of broilers
..... GUO Xiao-hua,LIU Ming,LI Wen-hui,et al(1673)

Fitting curve of laying rate and egg quality analysis of Yufen I commercial line
..... LI Hong-fei,SONG Ya-yi,TIAN Ya-dong,et al(1680)

Effect of two kinds of phytoestrogens on milk composition, blood biochemical index and antioxidant capacity of dairy cows LI Cong, ZANG Chang-jiang,LIU Ya-wei,et al(1688)

Effect of organic selenium and vitamin E on meat quality trait,blood biochemical indexes and antioxidant indexes of broiler chicken GAO Ai-qin,ZHU Yu-xia,LEI Zhen-hua,et al(1694)

Effect of adding reed to diet on growth performance and apparent digestibility in fattening Hetian sheep YUAN Fang, GUO Tong-jun, ZHANG Jun-yu,et al(1701)

Study on growth and development regularity of Suffolk lambs at 0-65 days of age
..... HE Jun-min, ZANG Chang-jiang, HUANG Xi-xia,et al(1707)

Effect of pasteurized colostrum on growth performance and development of gastrointestinal tract of calves LIU Gen-tao,BU Deng-pan,ZHAO Lian-sheng,et al(1714)

Effect of *Bacillus subtilis* on growth performance and serum biochemical parameters of weaned piglets WEI Li-min, SUN Rui-ping, LIU Hai-long,et al(1720)

Effect of different carbohydrate sources on growth performance, body size indexes and nutrients apparent digestibility of beef calves YANG Liang,ZHANG Wen-ju,ZHANG Xiao-yang,et al(1726)

Analysis on the genetic diversity of six bactrian camel populations in China using microsatellite marker BAI Li,ZHOU Jun-wen,LI Xin-hai,et al(1734)

Analysis of growth development and growth curve fitting of Pietrain pig
..... ZHANG Jin-shan, WU Qun-qing, ZHANG Yue-bo,et al(1746)

The estimation of genetic parameters of Holstein dairy cows in Ningxia region
..... LI Xin,ZHOU Jing-hang, WEN Wan,et al(1754)

Study on different expression of *HO-1* gene of 70-weeks-old Changshun blue-shelled chicken in different tissues BU Xiao-yan,LI Hui,SHI Xiao-li,et al(1762)

Etiological investigation of diarrhea in newborn piglets and molecular characterization and genetic variation analysis of *ORF3* gene of PEDV in North Guangdong
..... NAN Wen-jin, HU Hong-hui, WU Jing-bo,et al(1769)

Polymorphism of *MyoG* gene exon 1 and its association analysis with meat quality traits in sheep BAI Jun-yan, YANG You-bing,WANG Yu-qin,et al(1778)

Study on the key techniques of rapid propagation in purebred Wagyu
..... BI Jiang-hua,FENG Chun-tao,LI Su-xia,et al(1784)

Study on expression of *CD46* gene in different tissues of Xinjiang Brown cattle
..... Muhamaitijiang • Tiegesi,ZHANG Hui-min,SONG Huan-tang,et al(1790)

Prokaryotic expression and immunogenicity analysis of epitope domain of NSP2 of porcine reproductive and
respiratory syndrome virus HU Rong,BAI Wei-jie, WANG Zhi-jia,et al(1796)

Transcriptome sequencing analysis of *E. coli* O157 : H7 strains of different virulence from pigs
..... PENG Hao,LI Jun,YANG Wei,et al(1804)

Research progress on diagnosis technology of dairy cow mastitis pathogens
..... WANG Dan,YANG Feng,LI Xin-pu,et al(1811)

Development and primary application of indirect ELISA method for detecting the IgA antibody against
foot-and-mouth disease virus type A in porcine
..... WANG Yuan-yuan,PAN Li, LV Jian-liang,et al(1818)

The *Streptococcus suis* epidemiological analysis of healthy and infected swine in Guangdong province
..... LIU Qi,WANG Juan,ZHOU Ru-yue,et al(1825)

Detection and analysis of virulence genes and drug resistance genes in *E. coli* strains isolated from dairy
cows with clinical mastitis in Liaoning region YAO Wei, GAO Feng, CAO Ming-hui,et al(1832)

Study on expression and immune effect of F protein of Newcastle disease virus type Ⅲ in insect cell
..... SUN Peng(1840)

Establishment of digital RT-PCR assay for detection of swine influenza virus H3N2 subtype
..... TANG Liang-fei,YU Si-yu,ZHOU Yu(1847)

Preparation and identification of florfenicol-hydroxypropyl-β-cyclodextrin
..... YANG Bao-ting,WANG Geng-nan,HUANG Kang-dong,et al(1854)

Content determination of ivermectin in the ivermectin microemulsion injection
..... Wang Si-han,ZHANG Ji-yu, XING Shou-ye,et al(1861)

Research progress on antibodies rapid detection technology for veterinary synthetic antibacterial agents
..... HAN Xiao-ya, CHEN Dong-mei, WANG Yu-lian,et al(1869)

Study on improving active ingredients of *astragalus* root, stem and leaf by probiotic fermentation
..... SU Gui-long, ZHANG Jing-yan,ZHANG Kai,et al(1877)

Research progress on resistance mechanisms and detecting technology of *Mycobacterium tuberculosis*
..... LIU Yong-an, LI Xue-rui, LIU Yong-sheng(1884)

Effect of baicalin on cell permeability of *Escherichia coli*
..... LIU Hao, ZHAO Zi-bing, WU Dan-dan,et al(1890)

《中国畜牧兽医》编委会

顾 问：张子仪 院士

主任委员：秦玉昌

委 员：（按姓氏笔画排序）

印遇龙 院士	任继周 院士	沈建忠 院士				
麦康森 院士	张改平 院士	夏咸柱 院士				
马月辉 文 杰	王凤来 王文杰	王加启 王立贤	王楚端			
田见晖 刘国世	刘建新 朱化彬	朱鸿飞 吴于明	张文广			
张军民 张宏福	张家骅 李 奎	李发弟 李俊雅	李胜利			
杨汉春 陈化兰	陈继兰 单安山	罗海玲 范红结	曾林森			
赵茹茜 秦贵信	贾玉山 郭 勇	郭 鑫 崔尚金	曹兵海			
储明星 童光志	韩雪松 熊本海	谯仕彦				

The Editorial Board of CHINA ANIMAL HUSBANDRY & VETERINARY MEDICINE

Editorial Advisers: ZHANG Ziyi

Chairman: QIN Yuchang

Members: YIN Yulong	REN Jizhou	SHEN Jianzhong	
MAI Kangsen	ZHANG Gaiping	XIA Xianzhu	
MA Yuehui	WEN Jie	WANG Fenglai	WANG Wenjie
WANG Jiaqi	WANG Lixian	WANG Chuduan	TIAN Jianhui
LIU Guoshi	LIU Jianxin	ZHU Huabin	ZHU Hongfei
GUO Yuming	ZHANG Wenguang	ZHANG Junmin	ZHANG Hongfu
ZHANG Jiahua	LI Kui	LI Fadi	LI Junya
LI Shengli	YANG Hanchun	CHEN Hualan	CHEN Jilan
SHAN Anshan	LUO Hailing	FAN Hongjie	ZAN Linsen
ZHAO Ruqian	QIN Guixin	JIA Yushan	GUO Yong
GUO Xin	CUI Shangjin	CAO Binghai	CHU Mingxing
TONG Guangzhi	HAN Xuesong	XIONG Benhai	QIAO Shiyang