

# 畜牧兽医学报

XUMU SHOUYI XUEBAO

第 49 卷 第 6 期 2018 年 6 月

## 目 次

### 综 述

畜禽选择信号检测方法及其统计学问题

…………… 薛周舫源,宋显威,吴林慧,王露珍,崔家安,孙章健,张 政,马云龙(1099)

### 遗传育种

杜洛克猪 *HLCS* 基因组织表达分析及其编码区多态性与剩余采食量的关联

…… 张跃博,蒲 蕾,张金山,颜 华,王立刚,侯欣华,刘 欣,高红梅,王立贤,张龙超(1108)

坝上长尾鸡 *MITF* 基因核心启动子鉴定与分析 …… 刘小辉,彭永东,周荣艳,张传生,李祥龙(1116)

VEGF 对体外培养绒山羊次级毛囊外根鞘细胞的影响

…………… 张婧婧,王德光,周小兵,高 晔,何晓琳,陈玉林,张恩平(1124)

牛胎儿骨骼肌来源成肌细胞分化相关 microRNA 的筛查与鉴定

…………… 邢义坤,胡 鑫,任 玲,王亚慧,徐凌洋,李俊雅,张路培(1134)

可控表达 *pGH* 基因转基因小鼠模型的建立与分析

…………… 张建斌,刘 颖,白立景,牟玉莲,韩俊文(1145)

### 生物技术与繁殖

环境高温诱导巴马香猪睾丸细胞凋亡并激活 Nrf2/HO-1 抗氧化信号通路

…………… 李延森,李照见,贾潇潇,李春梅(1154)

产蛋后期母鸡脂肪沉积量与繁殖性能相关性研究

…………… 李云雷,薛夫光,徐松山,白 皓,刘一帆,孙研研,陈继兰(1163)

### 营养与饲料

发酵玉米-豆粕型全价饲料对生长猪生长性能、粪便臭味物质和菌群区系的影响

…………… 刘志云,钟晓霞,谢跃伟,肖 融,江 山,黄 健,黄金秀,周晓容(1169)

冬季封闭式肉种鸡舍空气颗粒物、氨气和二氧化碳分布特点及 PM<sub>2.5</sub> 理化特性分析

…………… 沈 丹,戴鹏远,吴 胜,唐 倩,李春梅(1178)

N-氨甲酰谷氨酸对育成期水貂生长性能、营养物质消化率、氮代谢及血清生化指标的影响

…………… 董晓静,崔 凯,马泽芳,李建栋,李迎梅(1194)

### 预防兽医

TPL2 促进口蹄疫病毒在 BHK-21 细胞复制

…………… 魏南南,徐守兴,史喜娟,卢炳州,张克山,郑海学,刘湘涛(1204)

## 稳定表达 SLAM 受体的 Vero 和 BHK21 细胞系的建立及其对犬瘟热病毒分离效果的比较

..... 朱 璐,燕 霞,代 科,王正皓,赵玉佳,杨 振,  
文心田,曹三杰,黄小波,伍 锐,赵 勤,文翼平(1212)

## 针对不同形式猪繁殖与呼吸综合征病毒 GP5 重组蛋白的抗体中和活性比较

..... 冯 延,郭 嘉,许瑞勤,马思续,魏凤灵,张留君,杨国宇,夏平安,张改平(1222)

## 干扰和稳定表达 GP5 对猪繁殖与呼吸综合征病毒感染早期复制的影响

..... 宋林林,贾存瑜,韩熙梦,周恩民,穆 杨(1231)

## 猪繁殖与呼吸综合征病毒类 NADC30 毒株 FJZ03 的致病性分析

..... 刘建奎,范佳霖,魏春华,李 艳,刘佳悦,马露露,虞慧芸,戴爱玲,杨小燕(1241)

## 变异猪流行性腹泻病毒 M 和 N 融合双基因的原核表达及表达产物免疫原性分析

..... 王隆柏,王晨燕,吴学敏,陈秋勇,车勇良,陈如敬,周伦江(1249)

## 猪丁型冠状病毒 S1 基因的克隆、原核表达及多克隆抗体制备

..... 李 成,张雨迪,黄小波,刘浩宇,刘志鹏,赵玉佳,  
曹三杰,文心田,文翼平,赵 勤,伍 锐(1256)

## 广西某市屠宰猪淋巴结猪圆环病毒 3 型的病原检测及遗传演化分析

..... 季程远,王蔚怡,冯选榕,姚 静,黄 欣,冯园青,  
覃一峰,方庆励,陈 樱,欧阳康,韦祖樟,黄伟坚(1265)

## 基础兽医

### 猪 *Beclin1* 基因调控伪狂犬病病毒诱导细胞自噬和凋亡的机制分析

..... 胡 林,南良康,张 敏,许苏童,杨了寒,李帅峰,王 凯,刘正飞,张淑君(1274)

### 猴源 *cathepsin* 基因 shRNA 文库及其稳定敲减细胞系的构建

..... 魏宇双,刘姣扬,韩莹倩,郭珍珍,刘晓贺,巴 根,韩立强,王 江,褚贝贝,杨国宇(1282)

### 肠炎沙门菌 *luxS* 缺失株的构建及其生物学特性研究

..... 于艳超,王莉莉,潘 巧,辛九庆,王秀梅(1291)

## 研究简报

### 伊犁马 *ACTN3* 基因外显子多态性研究

..... 王建文,李林玲,王镜力,孟 军,曾亚琦,姚新奎,辛雅莉(1299)

### *ANXA2* 与 *ERp29* 在正常与临床型乳房炎绵羊乳腺组织中的表达与定位

..... 高建锋,李讨讨,陈灿灿,赵兴绪,马友记(1307)

### 猪圆环病毒 3 型 LAMP 检测方法的建立与应用

..... 姜辰龙,严秀文,张日腾,李 勇,姜 平,白 娟(1314)

### 猪圆环病毒 3 型 TaqMan 荧光定量 PCR 方法的建立和初步应用

..... 李 畅,库旭钢,王俊伟,李 静,朱 玲,何启盖(1320)

ACTA VETERINARIA ET ZOOTECHNICA SINICA  
CHINESE JOURNAL OF ANIMAL AND VETERINARY SCIENCES

Published Monthly :

Chinese Association of Animal Science and Veterinary Medicine

Beijing , China

Vol .49 No .6(Jun . 2018 )

CONTENTS

REVIEW

The Identification Methods of Selection Signatures in Livestock and Its Statistical Problems

..... XUE Zhou-yi-yuan , SONG Xian-wei , WU Lin-hui , WANG Lu-zhen ,  
CUI Jia-an , SUN Zhang-jian , ZHANG Zheng , MA Yun-long(1099)

ANIMAL GENETICS AND BREEDING

Tissue Expression Profiles of *HLCS* Gene and Its Association with Residual Feed Intake in Duroc

..... ZHANG Yue-bo , PU Lei , ZHANG Jin-shan , YAN Hua , WANG Li-gang ,  
HOU Xin-hua , LIU Xin , GAO Hong-mei , WANG Li-xian , ZHANG Long-chao(1108)

Identification and Analysis of the Core Promoter of *MITF* Gene in Bashang Long-tail Chicken

..... LIU Xiao-hui , PENG Yong-dong , ZHOU Rong-yan , ZHANG Chuan-sheng , LI Xiang-long(1116)

Effect of VEGF on Secondary Hair Follicle Outer Root Sheath Cells of Cashmere Goat *in vitro*

..... ZHANG Jing-jing , WANG De-guang , ZHOU Xiao-bing , GAO Ye ,  
HE Xiao-lin , CHEN Yu-lin , ZHANG En-ping(1124)

Identification of microRNAs Involved in Myogenic Differentiation of Bovine Fetal Skeletal Muscle Derived Myoblasts

..... XING Yi-shen , HU Xin , REN Ling , WANG Ya-hui , XU Ling-yang , LI Jun-ya , ZHANG Lu-pei(1134)

Establishment and Analysis of Model of Transgenic Mice Sharing Inducible Expression of *pGH*

..... ZHANG Jian-bin , LIU Ying , BAI Li-jing , MU Yu-lian , HAN Jun-wen(1145)

ANIMAL BIOTECHNOLOGY AND REPRODUCTION

Ambient High Temperature Induced Cellular Apoptosis and Nrf2/HO-1 Signal Pathway in Testes of Bama Miniature Pigs

..... LI Yan-sen , LI Zhao-jian , JIA Xiao-xiao , LI Chun-mei(1154)

Relationship between Fat Deposition and Reproduction Performance of Beijing -You Chickens during the Late Stage of Reproductive Period

..... LI Yun-lei , XUE Fu-guang , XU Song-shan , BAI Hao ,  
LIU Yi-fan , SUN Yan-yan , CHEN Ji-lan(1163)

ANIMAL NUTRITION AND FEEDS

Effects of Fermented Corn-Soybean Complete Feed on the Growth Performance , Odor Concentration and Bacterial Community in Faeces of Growing Pigs

..... LIU Zhi-yun , ZHONG Xiao-xia , XIE Yue-wei , XIAO Rong ,  
JIANG Shan , HUANG Jian , HUANG Jin-xiu , ZHOU Xiao-rong(1169)

Distribution of Particles , Ammonia and Carbon Dioxide as well as Physicochemical Property of PM<sub>2.5</sub> in an Enclosed Broiler Breeder House in Winter

..... SHEN Dan , DAI Peng-yuan , WU Sheng , TANG Qian , LI Chun-mei(1178)

Effects of Dietary N-carbamoylglutamate on Growth Performance , Nutrient Digestibility , Nitrogen Metabolism and Serum Biochemical Indexes of Growing Mink

..... DONG Xiao-jing , CUI Kai , MA Ze-fang , LI Jian-dong , LI Ying-mei(1194)

## PREVENTIVE VETERINARY MEDICINE

TPL2 Enhances the Replication of Foot-and-mouth Disease Virus in BHK-21 Cells

..... WEI Nan-nan , XU Shou-xing , SHI Xi-juan , LU Bing-zhou ,  
ZHANG Ke-shan , ZHENG Hai-xue , LIU Xiang-tao(1204)

Establishment of Vero and BHK21 Cell Lines with a Stable Expression of Canine Distemper Virus Cell Receptor SLAM and Comparison of Their Effects on the Isolation of Canine Distemper Virus

..... ZHU Lu ,YAN Xia ,DAI Ke ,WANG Zheng-hao ,ZHAO Yu-jia ,YANG Zhen ,  
WEN Xin-tian ,CAO San-jie ,HUANG Xiao-bo ,WU Rui ,ZHAO Qin ,WEN Yi-ping(1212)

Comparison of Neutralizing Antibodies Induced by PRRSV GP5 Recombinant Proteins in Different Forms of Truncation

..... FENG Yan , GUO Jia , XU Rui-qin , MA Si-xu , WEI Feng-ling ,  
ZHANG Liu-jun , YANG Guo-yu , XIA Ping-an , ZHANG Gai-ping(1222)

The Effect of Interfering and Stable Expression of GP5 on the Replication of Porcine Reproductive and Respiratory Syndrome Virus in Early Infection

..... SONG Lin-lin ,JIA Cun-yu ,HAN Xi-meng ,ZHOU En-min ,MU Yang(1231)

Pathogenicity of a NADC30-like Strain FJZ03 of Porcine Reproductive and Respiratory Syndrome Virus Emerged in China

..... LIU Jian-kui , FAN Jia-lin , WEI Chun-hua , LI Yan , LIU Jia-yue ,  
MA Lu-lu , YU Hui-yun , DAI Ai-ling , YANG Xiao-yan(1241)

Prokaryotic Expression and Immunogenic Analysis of the Combined *M* and *N* Fusion Genes for Variant Porcine Epidemic Diarrhea Virus

..... WANG Long-bai , WANG Chen-yan , WU Xue-min , CHEN Qiu-yong ,  
CHE Yong-liang , CHEN Ru-jing , ZHOU Lun-jiang(1249)

Cloning and Prokaryotic Expression of Porcine Deltacoronavirus *S1* Gene and Preparation of Polyclonal Antibody

..... LI Cheng , ZHANG Yu-di , HUANG Xiao-bo , LIU Hao-yu , LIU Zhi-peng ,  
ZHAO Yu-jia , CAO San-jie , WEN Xin-tian , WEN Yi-ping , ZHAO Qin , WU Rui(1256)

Epidemiological Investigation and Genetic Diversity Analysis of Porcine Circovirus Type 3 in Slaughter Pigs of a City in Guangxi

..... JI Cheng-yuan , WANG Wei-yi , FENG Xuan-rong , YAO Jing , HUANG Xin , FENG Yuan-qing ,  
QIN Yi-feng , FANG Qing-li , CHEN Ying , OUYANG Kang , WEI Zu-zhang , HUANG Wei-jian(1265)

## BASIC VETERINARY MEDICINE

The Mechanism of Porcine *Beclin1* Gene on Autophagy and Apoptosis

..... HU Lin , NAN Liang-kang , ZHANG Min , XU Su-tong , YANG Liao-han ,  
LI Shuai-feng , WANG Kai , LIU Zheng-fei , ZHANG Shu-jun(1274)

Construction of shRNA Library of *Chlorocebus Sabaeus Cathepsin* Genes and the Establishment of Its Stable Transfection Cell Lines

..... WEI Yu-shuang , LIU Jiao-yang , HAN Ying-qian , GUO Zhen-zhen , LIU Xiao-he ,  
BA Gen , HAN Li-qiang , WANG Jiang , CHU Bei-bei , YANG Guo-yu(1282)

Construction and Biological Characteristics of *Salmonella Enterica* Serovar Enteritidis *luxS* Mutant

..... YU Yan-chao , WANG Li-li , PAN Qiao , XIN Jiu-qing , WANG Xiu-mei(1291)

## RESEARCH NOTES

Analysis on *ACTN3* Gene Exon Polymorphism of Yili Horse

..... WANG Jian-wen , LI Lin-ling , WANG Jing-li , MENG Jun , ZENG Ya-qi , YAO Xin-kui , XIN Ya-li(1299)

Expression and Localization of *ANXA2* and *ERp29* in Mammary Gland Tissue of Normal and Clinical Mastitis Sheep (*Ovis aries*)

..... GAO Jian-feng , LI Tao-tao , CHEN Can-can , ZHAO Xing-xu , MA You-ji(1307)

Establishment and Application of LAMP Method for Detection of Porcine Circovirus Type 3

..... JIANG Chen-long , YAN Xiu-wen , ZHANG Ri-teng , LI Yong , JIANG Ping , BAI Juan(1314)

Development and Application of a TaqMan-based Real-time Fluorescent PCR for Specific Detection of Porcine Circovirus Type 3

..... LI Chang , KU Xu-gang , WANG Jun-wei , LI Jing , ZHU Ling , HE Qi-gai(1320)