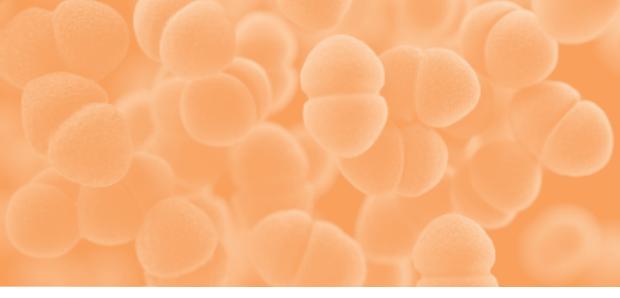


中文目次

- 
-
- 综述**
- 3091 CRISPR-Cas起源：TnpB与IscB核酸酶的研究与应用进展**
史光亮, 李维, 向华, 龚路遥

3105 乳果糖调节肠道微生物并改善抑郁症状的研究进展
李彦, 黄彦玮, 曾开泰, 温子琪, 陈容平

3124 中药活性成分通过调控肠道菌群改善2型糖尿病的作用研究进展
杨婷, 邱倩南, 丁加研, 那立欣

3141 红藻琼胶多糖微生物降解及意义研究进展
曲武, 曾润颖

3157 短促生乳杆菌基因组学研究进展
吕慧敏, 李伟程, 张和平

3168 肺炎链球菌荚膜多糖结构与合成的研究进展
赵文旭, 杨帆, 黄蕾, 董文博, 杨静华

3200 微藻葡萄糖磷酸变位酶研究进展
汤熙, 陈必链, 何勇锦
- 研究报告**
- 3224 健康和子宫蓄脓猫的子宫菌群多样性**
曾圣鑫, 陈志坤, 王寒, 孙成亮, 罗正中, 黄逸馨, 雍康, 姚学萍, 曹随忠

3238 大肠杆菌Nissle 1917的多组学分析及其产微菌素的功能验证
汤佳冰, 张颖, 叶佳微, 张显, 饶志明, 徐美娟

3253 桑树内生枯草芽孢杆菌的分离鉴定及其对桑椹核病的生防机理
李燕, 欧婷, 焦文莲, 张克瑶, 刘晓姣, 谢洁

3269 基于明尼苏达沙门氏菌Re595脂多糖低毒改造的外膜囊泡佐剂活性研究
张嘉雯, 尹文竹, 王海燕, 张金秋, 邓碧华, 卢宇, 周明旭, 马芳

3282 维氏气单胞菌tmRNA以sRNA形式特异调控的下游靶标筛选和鉴定
董园, 罗宸, 柏泰鹏, 唐燕琼, 刘柱, 马香

3295 母婴群体乳杆菌组成及优势种副干酪乳杆菌的遗传差异性
高慧娟, 袁丽霞, 张雪玲, 倪永清

3314 黑曲霉酸性蛋白酶PrA在毕赤酵母中的高效表达
李炳坤, 郑毅恒, 王飞, 成莉凤, 李丁

3330 基于DoseResp模型的角蛋白酶发酵策略研究及其在血栓降解中的应用
刘燕凌, 苏畅, 龚劲松, 陈玉新, 李恒, 许正宏, 史劲松
- 3345 添加大蒜汁对东北酸菜的影响**
孙全敏, 赵露, 陈文丽, 吴家明, 迟乃玉, 王晓辉, 张庆芳
- 3366 紫花苞舌兰不同发育阶段根内及根区土壤真菌的分布特征**
张文杰, 高世南, 梁玉琼, 王梦雪, 邵士成
- 3379 一株枯草芽孢杆菌噬菌体Bac-S的生物学特性及全基因组序列分析**
赵欣卓, 王鑫淼, 王丽艳, 吴楠, 李喜梅, 于镇华, 荆瑞勇, 刘俊杰
- 3393 黑翅土白蚁菌圃共生菌对小麦秸秆的生物降解**
李吴晗, 黄越, 余婷, 沈毅, 周琪欢, 陈翔, 莫建初
- 3409 一种肠道微生物代谢产物混合物对肝癌的影响**
董妍汐, 王滨, 张书琴, 肖惠文, 刘杏忠, 董佳丽, 崔明
- 3419 克雷伯氏菌CW-D3T菌株硫酸盐厌氧呼吸对水中PHE-Cd²⁺的修复特性**
许晓毅, 季凡, 吴兵党, 庄金龙, 黄天寅, 白净, 张明乐
- 3436 单羧酸转运蛋白MpMch2调控紫色红曲霉的性发育及代谢产物的产生**
潘妍妍, 邵嘉朱, 蒋冬花
- 3453 基于转录组分析的腾冲嗜热厌氧杆菌thiD的热适应机制研究(英文)**
刘亚娟, 郑航辉, 刘原子, 陈宜军, 万学瑞, 赵春林, 王川, 杨宇泽
- 3474 曲霉属α-L-鼠李糖苷酶的挖掘、酶学性质表征与应用**
夏婷, 舒涛, 王兰英, 陈林浩, 班雅丽, 吕波
- 3489 地塞米松通过调节中性粒细胞和巨噬细胞向肿瘤的浸润增强减毒鼠伤寒沙门菌介导的肿瘤免疫治疗的抗肿瘤效果(英文)**
王珍, 朴伶华, 申铉日, 柳贤德
- 3506 CbrB在防御假单胞菌Pf-5生物防治中的作用**
饶光耀, 万成, 石红穆, 董小林, 查代明
- 3521 利用代谢工程技术强化肉桂地链霉菌莫能菌素的生物合成**
刘曼炜, 张善飞, 黄子瑄, 邢浩博, 孙付保
- 技术与方法**
- 3533 基于原位延时成像算法的快速抗菌药物敏感性测试方法**
高千惠, 徐亦雯, 陈弘毅, 胡慧杰, 蒙思宇, 张长松, 王婷, 张志强, 宋一之

3547 难培养微小小单胞菌培养基改良
凌慧, 常宇骁, 李东, 王立坤, 张欢, 覃小铭, 谭亚芳, 毕玉晶

CONTENTS

REVIEWS

- 3091 Origin of CRISPR-Cas: progress in research and applications of TnpB and IscB
SHI Guangliang, LI Wei, XIANG Hua, GONG Luyao
- 3105 Research progress in the regulation of gut microbiota and mitigation of depressive symptoms by lactulose
LI Yan, HUANG Yanwei, ZENG Kaitai, WEN Ziqi, CHEN Rongping
- 3124 Research progress in the role of active components of traditional Chinese medicine in ameliorating type 2 diabetes mellitus by regulating gut microbiota
YANG Ting, DI Qiannan, DING Jiayan, NA Lixin
- 3141 Research progress in biodegradation of the agar from red algae
QU Wu, ZENG Runying
- 3157 Research progress in genomics of *Levilactobacillus brevis*
LYU Huimin, LI Weicheng, ZHANG Heping
- 3168 Advances in the chemical structures and biosynthesis of capsular polysaccharides of *Streptococcus pneumoniae*
ZHAO Wenxu, YANG Fan, HUANG Lei, DONG Wenbo, YANG Jinghua
- 3200 Research progress of phosphoglucomutases from microalgae
TANG Xi, CHEN Bilian, HE Yongjin

RESEARCH ARTICLES

- 3224 Diversity of uterine microbiota in healthy felines and felines with pyometra
ZENG Shengxin, CHEN Zhikun, WANG Han, SUN Chengliang, LUO Zhengzhong, HUANG Yixin, YONG Kang, YAO Xueping, CAO Suizhong
- 3238 Multiomics analysis of *Escherichia coli* Nissle 1917 and functional validation of microcin
TANG Jiabing, ZHANG Ying, YE Jiawei, ZHANG Xian, RAO Zhiming, XU Meijuan
- 3253 Isolation and identification of an endophytic *Bacillus subtilis* from mulberry and preliminary exploration of its biocontrol mechanisms against mulberry fruit sclerotiniose
LI Yan, OU Ting, JIAO Wenlian, ZHANG Keyao, LIU Xiaojiao, XIE Jie
- 3269 Adjuvant activity of outer membrane vesicles from *Salmonella minnesota* Re595 with lipopolysaccharides modified for attenuating toxicity
ZHANG Jiawen, YIN Wenzhu, WANG Haiyan, ZHANG Jinqiu, DENG Bihua, LU Yu, ZHOU Mingxu, MA Fang
- 3282 Screening and identification of downstream targets specifically regulated by *Aeromonas veronii* tmRNA in the form of sRNA
TONG Yuan, LUO Chen, BAI Taipeng, TANG Yanqiong, LIU Zhu, MA Xiang
- 3295 Community composition of *Lactobacillus* spp. and genetic differences of the dominant species *Lacticaseibacillus paracasei* in mother-infant pairs
GAO Huijuan, YUAN Lixia, ZHANG Xueling, NI Yongqing
- 3314 Efficient expression of the *Aspergillus niger* acidic protease PrA in *Pichia pastoris*
LI Bingkun, ZHENG Yiheng, WANG Fei, CHENG Lifeng, LI Ding
- 3330 Keratinase: fermentation optimization based on DoseResp model and application in thrombolysis
LIU Yanling, SU Chang, GONG Jinsong, CHEN Yuxin, LI Heng, XU Zhenghong, SHI Jinsong

- 3345 Effects of adding garlic juice on pickled Chinese cabbage
SUN Quanmin, ZHAO Lu, CHEN Wenli, WU Jiaming, CHI Naiyu, WANG Xiaohui, ZHANG Qingfang
- 3366 Fungal community dynamics in the roots and root zone soil of *Spathoglottis plicata* at different development stages
ZHANG Wenjie, GAO Shinan, LIANG Yuqiong, WANG Mengxue, SHAO Shicheng
- 3379 Biological characterization and genome sequence of a bacteriophage strain Bac-S infecting *Bacillus subtilis*
ZHAO Xinzhao, WANG Xinmiao, WANG Liyan, WU Nan, LI Ximei, YU Zhenhua, JING Ruiyong, LIU Junjie
- 3393 Biodegradation of wheat straw by symbiotic fungi and bacteria of *Odontotermes formosanus*
LI Wuhan, HUANG Yue, YU Ting, SHEN Yi, ZHOU Qihuan, CHEN Xiang, MO Jianchu
- 3409 A metabolite cocktail of gut microbiota affects hepatocellular carcinoma
DONG Yanxi, WANG Bin, ZHANG Shuqin, XIAO Huiwen, LIU Xingzhong, DONG Jiali, CUI Ming
- 3419 Bioremediation characteristics of PHE-Cd²⁺ in water by anaerobic respiration of the sulfate-reducing bacterium *Klebsiella* sp. CW-D3T
XU Xiaoyi, JI Fan, WU Bingdang, ZHUANG Jinlong, HUANG Tianyin, BAI Jing, ZHANG Mingle

- 3436 Monocarboxylate transporter MpMch2 regulates the sexual development and metabolite production of *Monascus purpureus*
PAN Yanyan, SHAO Jiazu, JIANG Donghua
- 3453 RNA-seq reveals the role of *thiD* in the thermal adaptation of *Thermoanaerobacter tengcongensis*
LIU Yajuan, ZHENG Hanghui, LIU Yuanzi, CHEN Yijun, WAN Xuerui, ZHAO Chunlin, WANG Chuan, YANG Yuze
- 3474 Mining, enzymatic characterization, and application of α -L-rhamnosidase from *Aspergillus* sp.
XIA Ting, SHU Tao, WANG Lanying, CHEN Linhao, BAN Yali, LÜ Bo
- 3489 Dexamethasone augments the efficacy of attenuated *Salmonella typhimurium*-based cancer immunotherapy by modulating the infiltration of neutrophils and macrophages in the tumor microenvironment
WANG Zhen, PIAO Linghua, SHEN Xuanri, LIU Xiande
- 3506 Role of CbrB in the biocontrol strain *Pseudomonas protegens* Pf-5
RAO Guangyao, WAN Cheng, SHI Hongqiu, DONG Xiaolin, ZHA Daiming
- 3521 Metabolic engineering of *Streptomyces cinnamoneensis* enhances biosynthesis of monensin
LIU Minwei, ZHANG Shanfei, HUANG Zixuan, XING Haobo, SUN Fubao

TECHNOLOGY AND METHOD

- 3533 Rapid antimicrobial susceptibility test based on *in-situ* time-lapsed imaging of microcolonies
GAO Qianhui, XU Yiwen, CHEN Hongyi, HU Huijie, MENG Siyu, ZHANG Changsong, WANG Ting, ZHANG Zhiqiang, SONG Yizhi
- 3547 Culture medium optimization of fastidious *Parvimonas micra*
LING Hui, CHANG Yuxiao, LI Dong, WANG Likun, ZHANG Huan, QIN Xiaoming, TAN Yafang, BI Yujing