

I 导读

综述

- 491 Zn²⁺依赖型组蛋白去乙酰化酶在植物非生物胁迫响应中的作用及机制
魏明, 赵萌, 吴欣蕊, 伍国强
- 510 植物自噬相关基因在响应逆境胁迫中的功能和作用机制
任云儿, 伍国强, 魏明
- 530 JAZ在园艺植物生长发育中的调控作用
张欣欣, 陶涛, 李杭春, 乔治, 汤青林, 魏大勇, 杨洋, 王志敏
- 546 生产双链RNA工程菌的研究进展
崔锦程, 崔洁, 卞小莹
- 559 甜味蛋白质基因工程与分子改性研究进展
卢尚阳, 常诗瑜, 王语晴, 刘波
- 574 食用菌麦角硫因的研究进展
杨林雷, 沈真辉, 罗祥英, 李荣平, 李荣春

农业生物技术

- 588 代谢组与转录组联合分析镉胁迫下浙麦冬黄酮类化合物积累及生物合成途径
高耸, 邱梦丽, 李晴, 赵倩, 牛二利
- 602 基于代谢组学和网络药理学的蜡梅类黄酮组分评价
周丹, 赵彦贝, 王梓煦, 李庆卫
- 618 ‘美人’梅在干旱胁迫下的生理响应及相关基因筛选
王梓煦, 罗春燕, 童宇航, 郑为军, 李庆卫
- 639 基于SSR荧光标记的花果兼用梅遗传多样性分析和分子身份证构建
王梓煦, 周丹, 赵彦贝, 童宇航, 郑为军, 李庆卫
- 657 硝酸盐诱导的GARP类转录因子AhNIGT1.2调控花生结瘤的功能分析
李晓亮, 何海通, 何苏秦, 王路瑶, 张威, 孔照胜, 王利祥
- 670 部分敲除*NtPDK1a/1b/1c/1d*增强烟草抗病性
任茜薇, 兰胡娇, 刘天瑶, 赵焕停, 赵雅婷, 张蕊, 刘建中

- 680 镉胁迫下丛枝菌根真菌对彩叶草生理代谢和根系损伤的影响
侯亚男, 江帆, 周舒扬, 陈丁尹, 朱怡杰, 缪怡宁, 岑钢, 王怡芳, 吴敏, 刘鹏
- 693 阿维链霉菌合成纳米硒的物理化学表征及其对枸杞病原真菌的抑菌活性
张琪, 李亚妮, 周荣娟, 秦佳圆, 岳思君
- 706 基于*OsSPL10*编辑创制沿黄光叶耐盐水稻新种质
轩强兵, 周慧岗, 朱明兰, 王俊杰, 梁卫红
- 719 紫花苜蓿 β -淀粉酶基因家族成员鉴定及其在盐碱胁迫下的表达分析
曲宏宇, 张力爽, 汤雅惠, 刘磊, 郭睿, 郭卫冷, 郭长虹
- 736 芥菜MAPK基因家族成员鉴定及其响应根肿菌侵染的表达分析
徐楚, 王海平, 宋江萍, 张晓辉, 贾会霞, 韩嘉琪, 李芝洁, 李森, 阳文龙
- 753 沙棘LBD基因家族鉴定及其在花芽发育过程中的表达分析
李昕娟, 杨盼盼, 张恬, 任乾丹, 周武
- 771 浙麦冬HMA基因家族鉴定及镉胁迫响应分析
王智慧, 牛二利, 高远亮, 朱倩, 叶子弘, 俞晓平, 赵倩, 黄俊
- 791 甜瓜 α -葡萄糖苷酶和 β -葡萄糖苷酶基因家族鉴定及表达模式分析
梁语珊, 张赵杨, 岳婷茹, 张利超, 杜清洁, 王吉庆, 肖怀娟, 李猛
- 809 云南柃[木衣]TCP基因家族全基因组鉴定与表达分析
张宝月, 刘国平, 田金红, 王大玮
- 825 沙地云杉MYB转录因子家族鉴定及其对盐胁迫的响应
隋明明, 张富满, 田甜, 闫艳秋, 耿乐, 李慧, 白玉娥
- 845 月季漆酶基因*RcLAC15*克隆与表达分析
李琪, 彭义方, 董琪婧, 杨芊, 刘笑雨, 韩瑜
- 857 黄瓜丝裂原活化蛋白激酶*CsMPK4*基因的功能鉴定
纪光昊, 鲁迁里, 余月, 王鹤冰, 汤青林
- 869 矮牵牛*PhNAL1b*基因的克隆及功能分析
姚许蓉, 刘同瑞, 董丽丽, 邓新义
- 881 比利时杜鹃类黄酮3-O-糖基转移酶基因的克隆、原核表达及功能分析
鄢毅斌, 吴泽航, 姜宇航, 胡高源, 杨宇杰, 谢晓鸿, 吴月燕, 贾永红

I Briefing and introduction

Reviews

- 491** Functions and mechanisms of Zn²⁺-dependent histone deacetylase in plant responses to abiotic stress
WEI Ming, ZHAO Meng, WU Xinrui, WU Guoqiang
- 510** Functions and mechanisms of autophagy-related genes in plant responses to adversity stresses
REN Yun'er, WU Guoqiang, WEI Ming
- 530** Regulatory roles of JAZ in the growth and development of horticultural plants
ZHANG Xinxin, TAO Tao, LI Hangchun, QIAO Zhi, TANG Qinglin, WEI Dayong, YANG Yang, WANG Zhimin
- 546** Research progress in the engineering strains for producing double-stranded RNA
CUI Jincheng, CUI Jie, BIAN Xiaoying
- 559** Advances in genetic engineering and molecular modification of sweet-tasting proteins
LU Shangyang, CHANG Shiyu, WANG Yuqing, LIU Bo
- 574** Recent progress in ergothioneine of edible fungi
YANG Linlei, SHEN Zhenhui, LUO Xiangying, LI Rongping, LI Rongchun

Agricultural Biotechnology

- 588** Integrated transcriptomics and metabolomics analysis of flavonoid biosynthesis in *Ophiopogon japonicum* under cadmium stress
GAO Song, QIU Mengli, LI Qing, ZHAO Qian, NIU Erli
- 602** Evaluation of flavonoids in *Chimonanthus praecox* based on metabolomics and network pharmacology
ZHOU Dan, ZHAO Yanbei, WANG Zixu, LI Qingwei
- 618** Physiological responses and transcriptional regulation of *Prunus mume* 'Meiren' under drought stress
WANG Zixu, LUO Chunyan, TONG Yuhang, ZHENG Weijun, LI Qingwei
- 639** Genetic diversity and molecular identity of *Prunus mume* with both ornamental and edible values based on fluorescence-labeled simple sequence repeat (SSR) markers
WANG Zixu, ZHOU Dan, ZHAO Yanbei, TONG Yuhang, ZHENG Weijun, LI Qingwei
- 657** Functional analysis of a nitrate-induced GARP transcription factor AhNIGT1.2 in peanut nodulation
LI Xiaoliang, HE Haitong, HE Suqin, WANG Luyao, ZHANG Wei, KONG Zhaosheng, WANG Lixiang
- 670** Partial knockout of *NtPDK1a/1b/1c/1d* enhances the disease resistance of *Nicotiana tabacum*
REN Qianwei, LAN Hujiao, LIU Tianyao, ZHAO Huanting, ZHAO Yating, ZHANG Rui, LIU Jianzhong

- 680** Arbuscular mycorrhizal fungi improve physiological metabolism and ameliorate root damage of *Coleus scutellarioides* under cadmium stress
HOU Yanan, JIANG Fan, ZHOU Shuyang, CHEN Dingyin, ZHU Yijie, MIAO Yining, CENG Kai, WANG Yifang, WU Min, LIU Peng
- 693** Selenium nanoparticles synthesized by *Streptomyces avermitilis*: physical and chemical characteristics and inhibitory activity on a pathogen of *Lycium barbarum*
ZHANG Qi, LI Yani, ZHOU Rongjuan, QING Jiayuan, YUE Sijun
- 706** Creation of new glabrous and salt-tolerant rice germplasm along the Yellow River by CRISPR-Cas9-mediated editing of *OsSPL10*
XUAN Qiangbing, ZHOU Huigang, ZHU Minglan, WANG Junjie, LIANG Weihong
- 719** Identification and expression analysis of β -amylase gene family members in alfalfa under saline-alkali stress
QU Hongyu, ZHANG Lishuang, TANG Yahui, LIU Lei, GUO Rui, GUO Weileng, GUO Changhong
- 736** Genome-wide identification, characterization, and expression analysis of MAPK genes in response to *Plasmidiophora brassicae* infection in *Brassica juncea*
XU Chu, WANG Haiping, SONG Jiangping, ZHANG Xiaohui, JIA Huixia, HAN Jiaqi, LI Zhijie, LI Sen, YANG Wenlong
- 753** LBD gene family in *Hippophae rhamnoides*: identification and expression pattern during flower bud development
LI Xinjuan, YANG Panpan, ZHANG Tian, REN Qiandan, ZHOU Wu
- 771** Identification of HMA gene family and response to cadmium stress in *Ophiopogon japonicus*
WANG Zhihui, NIU Erli, GAO Yuanliang, ZHU Qian, YE Zihong, YU Xiaoping, ZHAO Qian, HUANG Jun
- 791** Identification and expression pattern analysis of α -glucosidase and β -glucosidase gene family members in melon
LIANG Yushan, ZHANG Zhaoyang, YUE Tingru, ZHANG Lichao, DU Qingjie, WANG Jiqing, XIAO Huaijuan, LI Meng
- 809** Genome-wide identification and expression analysis of TCP gene family in *Docynia delavayi* (Franch.) Schneid.
ZHANG Baoyue, LIU Guoping, TIAN Jinhong, WANG Dawei
- 825** Identification of the MYB transcription factor family involved in response to salt stress in *Picea mongolica*
SUI Mingming, ZHANG Fuman, TIAN Tian, YAN Yanqiu, GENG Le, LI Hui, BAI Yu'e
- 845** Cloning and expression analysis of the laccase gene *RcLAC15* from *Rosa chinensis*
LI Qi, PENG Yifang, DONG Qijing, YANG Qian, LIU Xiaoyu, HAN Yu
- 857** Function identification of the mitogen-activated protein kinase gene *CsMPK4* in cucumber
JI Guanghao, LU Qianli, YU Yue, WANG Hebing, TANG Qinglin
- 869** Cloning and functional characterization of *PhNAL1b* from *Petunia hybrid* cv. Mitchell Diploid
YAO Xurong, LIU Tongrui, DONG Lili, DENG Xinyi
- 881** Cloning, prokaryotic expression, and functional validation of flavonoid 3-O-glycosyltransferase gene (*Rh3GT*) from *Rhododendron hybridum* Hort
YAN Yicheng, WU Zehang, JIANG Yuhang, HU Gaoyuan, YANG Yujie, XIE Xiaohong, WU Yueyan, JIA Yonghong