



蛇足石杉内生真菌抗乙酰胆碱酯酶活性筛选及分类鉴定

投稿时间: 2012-09-20 责任编辑: 点此下载全文

引用本文: 王莉,吕会芳,张丽,化海霞,王杰华,胡之璧,黎万奎.蛇足石杉内生真菌抗乙酰胆碱酯酶活性筛选及分类鉴定[J].中国中药杂志,2012,37(24):3701.

DOI: 10.4268/cjmm.20122405

摘要点击次数: 88

全文下载次数: 68

广告合作



作者中文名	作者英文名	单位中文名	单位英文名	E-Mail
王莉	WANG Li-li	上海中医药大学 中药研究所 中药标准化教育部重点实验室 上海 201213 上海中医药大学 中药研究所 中药资源与质量标准综合评价 国家中医药管理局重点实验室 上海 201213	The MOE Key Laboratory for Standardization of Chinese Medicines, Institute of Chinese Materia Medica, Shanghai University of Traditional Chinese Medicine, Shanghai 201203, China The SATCM Key Laboratory for New Resources and Quality Evaluation of Chinese Medicines, Institute of Chinese Materia Medica, Shanghai University of Traditional Chinese Medicine, Shanghai 201203, China	
吕会芳	LV Hui-fang	上海中医药大学 中药研究所 中药标准化教育部重点实验室 上海 201213 上海中医药大学 中药研究所 中药资源与质量标准综合评价 国家中医药管理局重点实验室 上海 201213	The MOE Key Laboratory for Standardization of Chinese Medicines, Institute of Chinese Materia Medica, Shanghai University of Traditional Chinese Medicine, Shanghai 201203, China The SATCM Key Laboratory for New Resources and Quality Evaluation of Chinese Medicines, Institute of Chinese Materia Medica, Shanghai University of Traditional Chinese Medicine, Shanghai 201203, China	
张丽	ZHANG Li	上海中医药大学 中药研究所 中药标准化教育部重点实验室 上海 201213 上海中医药大学 中药研究所 中药资源与质量标准综合评价 国家中医药管理局重点实验室 上海 201213	The MOE Key Laboratory for Standardization of Chinese Medicines, Institute of Chinese Materia Medica, Shanghai University of Traditional Chinese Medicine, Shanghai 201203, China The SATCM Key Laboratory for New Resources and Quality Evaluation of Chinese Medicines, Institute of Chinese Materia Medica, Shanghai University of Traditional Chinese Medicine, Shanghai 201203, China	
化海霞	HUA Hai-ma	上海中医药大学 中药研究所 中药标准化教育部重点实验室 上海 201213 上海中医药大学 中药研究所 中药资源与质量标准综合评价 国家中医药管理局重点实验室 上海 201213	The MOE Key Laboratory for Standardization of Chinese Medicines, Institute of Chinese Materia Medica, Shanghai University of Traditional Chinese Medicine, Shanghai 201203, China The SATCM Key Laboratory for New Resources and Quality Evaluation of Chinese Medicines, Institute of Chinese Materia Medica, Shanghai University of Traditional Chinese Medicine, Shanghai 201203, China	
王杰华	WANG Jie-hua	上海中医药大学 中药研究所 中药标准化教育部重点实验室 上海 201213 上海中医药大学 中药研究所 中药资源与质量标准综合评价 国家中医药管理局重点实验室 上海 201213	The MOE Key Laboratory for Standardization of Chinese Medicines, Institute of Chinese Materia Medica, Shanghai University of Traditional Chinese Medicine, Shanghai 201203, China The SATCM Key Laboratory for New Resources and Quality Evaluation of Chinese Medicines, Institute of Chinese Materia Medica, Shanghai University of Traditional Chinese Medicine, Shanghai 201203, China	
胡之璧	HU Zhi-bi	上海中医药大学 中药研究所 中药标准化教育部重点实验室 上海 201213 上海中医药大学 中药研究所 中药资源与质量标准综合评价 国家中医药管理局重点实验室 上海 201213	The MOE Key Laboratory for Standardization of Chinese Medicines, Institute of Chinese Materia Medica, Shanghai University of Traditional Chinese Medicine, Shanghai 201203, China The SATCM Key Laboratory for New Resources and Quality Evaluation of Chinese Medicines, Institute of Chinese Materia Medica, Shanghai University of Traditional Chinese Medicine, Shanghai 201203, China	zhibihu@hotmail.com
黎万奎	LI Wan-kui	上海中医药大学 中药研究所 中药标准化教育部重点实验室 上海 201213 上海中医药大学 中药研究所 中药资源与质量标准综合评价 国家中医药管理局重点实验室 上海 201213	The MOE Key Laboratory for Standardization of Chinese Medicines, Institute of Chinese Materia Medica, Shanghai University of Traditional Chinese Medicine, Shanghai 201203, China The SATCM Key Laboratory for New Resources and Quality Evaluation of Chinese Medicines, Institute of Chinese Materia Medica, Shanghai University of Traditional Chinese Medicine, Shanghai 201203, China	bio52106@126.com

基金项目:国家自然科学基金项目(30873386,81130070);上海高校优秀基金项目(szy10036)

中文摘要:目的:蛇足石杉*Huperzia serrata*(Thunb. ex Murray) Trevis.内生真菌中筛选具有抗乙酰胆碱酯酶活性的菌株。方法:利用乙酰胆碱酯酶水解 α -萘乙酯的产物和固蓝B发生显色反应的原理,用薄层色谱-生物自显影法对59株蛇足石杉内生真菌发酵产物进行乙酰胆碱酯酶活性筛选,并通过18S rDNA和5.8S rDNA序列分析结合形态学特征对目标菌株进行分类鉴定。结果:蛇足石杉内生真菌LQ2F01在抗乙酰胆碱酯酶活性筛选中呈现阳性颜色反应,18S rDNA和5.8S rDNA序列分析并结合形态学分类表明该菌株属顶孢霉属*Acremonium*。结论:蛇足石杉内生真菌LQ2F01表现出和宿主植物相同的抗乙酰胆碱酯酶活性,在天然药物开发以及内生真菌与宿主植物关系的研究中具有重要意义。

中文关键词:蛇足石杉 内生真菌 乙酰胆碱酯酶抑制剂 18S rDNA 5.8S rDNA 顶孢霉属

Screening of endophytic fungi from *Huperzia serrata* for acetylcholinesterase inhibitory activity and its taxonomic identification

Abstract: Objective: To screen out fungus strains with acetylcholinesterase inhibitory activity from *Huperzia serrata*. **Method:** Endophytic fungi fermentation products from 59 *H. serrata* strains were stained with acetylcholinesterase hydrolyzed α -naphthaleneacetic ethyl ester and fast blue B salt, and screened for acetylcholinesterase inhibitory activity with thin-layer chromatography-bioautography. Target strains were classified and identified through the sequence analysis on 18S rDNA and 5.8S rDNA combined with morphological characteristics. **Result:** Fungus strain LQ2F01 from *H. serrata* showed positive color reaction in the screening for acetylcholinesterase inhibitory activity. The sequence analysis on 18S rDNA and 5.8S rDNA combined with morphological characteristics showed the strain LQ2F01 belonged to *Acremonium*. **Conclusion:** Endophytic Fungi LQ2F01 from *H. serrata* shows identical acetylcholinesterase inhibitory activity with the host plant, which is of great significance to the development of natural medicines and the studies on the relationship between the endophytic fungi and the host plant.

keywords: *Huperzia serrata* endophytic fungi acetylcholinesterase inhibitor 18S rDNA 5.8S rDNA *Acremonium*

[查看全文](#) [查看/发表评论](#) [下载PDF阅读器](#)