

贝莱斯芽孢杆菌表面活性素的合成强化及抑菌特性分析

胡嘉波¹ 黄巍巍^{1,2} 续晓琪^{1,2} 李莎^{1,2*}

(1. 南京工业大学 材料化学工程全国重点实验室, 南京 211800; 2. 南京工业大学 食品与轻工学院, 南京 211800)

DOI:10.13560/j.cnki.biotech.bull.1985.2026-0739

附表 1 本研究所使用的质粒和菌株信息

Table S1 Information on the plasmids and strains used in this study

质粒和菌株	特性	来源
Plasmid and strain	Characteristics	Source
质粒 Plasmids		
pHT01	大肠杆菌-枯草芽孢杆菌穿梭质粒/ <i>E. coli</i> - <i>B. subtilis</i> shuttle plasmid	实验室保藏/Laboratory collection
pHT01- <i>tesB</i>	pHT01 携带铜绿假单胞菌来源的 <i>tesB</i> 基因/pHT01 carrying the <i>tesB</i> gene from <i>Pseudomonas aeruginosa</i>	本研究构建/Constructed in this study
pHT01- <i>tesA</i>	pHT01 携带解淀粉芽孢杆菌来源的 <i>tesA</i> 基因/pHT01 carrying the <i>tesA</i> gene from <i>Bacillus amyloliquefaciens</i>	本研究构建/Constructed in this study
pHT01- <i>scoT</i>	pHT01 携带链霉菌来源的 <i>scoT</i> 基因/pHT01 carrying the <i>scoT</i> gene from <i>Streptomyces</i> sp.	本研究构建/Constructed in this study
pHT01- <i>bmyC</i>	pHT01 携带萎缩芽孢杆菌来源的 <i>bmyC</i> 基因/pHT01 carrying the <i>bmyC</i> gene from <i>Bacillus atrophaeus</i>	本研究构建/Constructed in this study
pHT01- <i>burA</i>	pHT01 携带泰国伯克霍尔德菌来源的 <i>burA</i> 基因/pHT01 carrying the <i>burA</i> gene from <i>Burkholderia thailandensis</i>	本研究构建/Constructed in this study
pHT01- <i>srfAD</i> -1	pHT01 携带枯草芽孢杆菌来源的 <i>srfAD</i> 基因/pHT01 carrying the <i>srfAD</i> gene from <i>Bacillus subtilis</i>	本研究构建/Constructed in this study
pHT01- <i>srfAD</i> -2	pHT01 携带 NJ10 菌株的 <i>srfAD</i> 基因/pHT01 carrying the <i>srfAD</i> gene from strain NJ10	本研究构建/Constructed in this study
pHT01- <i>pcpS</i>	pHT01 携带铜绿假单胞菌来源的 <i>pcpS</i> 基因/pHT01 carrying the <i>pcpS</i> gene from <i>Pseudomonas aeruginosa</i>	本研究构建/Constructed in this study
pHT01- <i>sfp</i> -1	pHT01 携带解淀粉芽孢杆菌来源的 <i>sfp</i> 基因/pHT01 carrying the <i>sfp</i> gene from <i>Bacillus amyloliquefaciens</i>	本研究构建/Constructed in this study
pHT01- <i>sfp</i> -2	pHT01 携带枯草芽孢杆菌来源的 <i>sfp</i> 基因/pHT01 carrying the <i>sfp</i> gene from <i>Bacillus subtilis</i>	本研究构建/Constructed in this study
pHT01- <i>kirP</i>	pHT01 携带链霉菌来源的 <i>kirP</i> 基因/pHT01 carrying the <i>kirP</i> gene from <i>Streptomyces</i> sp.	本研究构建/Constructed in this study
pHT01- <i>sfp</i> -3	pHT01 携带 NJ10 菌株来源的 <i>sfp</i> 基因/pHT01 carrying the <i>sfp</i> gene from strain NJ10	本研究构建/Constructed in this study
pHT01- <i>TS</i>	连接方式为 <i>tesB</i> - <i>pcpS</i> / <i>tesB</i> - <i>pcpS</i> arrangement	本研究构建/Constructed in this study

pHT01- <i>ST</i>	连接方式为 <i>pcpS-tesB/pcpS-tesB arrangement</i>	本研究构建/Constructed in this study
pHT01- <i>SRT</i>	连接方式为 <i>pcpS-RBS-tesB/pcpS-RBS-tesB arrangement</i>	本研究构建/Constructed in this study
pHT01- <i>TRS</i>	连接方式为 <i>tesB-RBS-pcpS/tesB-RBS-pcpS arrangement</i>	本研究构建/Constructed in this study
菌株 Strains		
DH5 α	克隆宿主/Cloning host	购买获得/Commercially purchased
NJ10	Surfactin 生产菌株/Surfactin-producing strain	本研究获得/Obtained in this study
NJ10-a	Surfactin 高产菌株/High-surfactin-producing strain	本研究获得/Obtained in this study
NJ10-a-T1	<i>Bacillus velezensis</i> NJ10-a/pHT01- <i>srfAD-2</i>	本研究构建/Constructed in this study
NJ10-a-T2	<i>Bacillus velezensis</i> NJ10-a/pHT01- <i>scoT</i>	本研究构建/Constructed in this study
NJ10-a-T3	<i>Bacillus velezensis</i> NJ10-a/pHT01- <i>tesB</i>	本研究构建/Constructed in this study
NJ10-a-T4	<i>Bacillus velezensis</i> NJ10-a/pHT01- <i>bmyC</i>	本研究构建/Constructed in this study
NJ10-a-T5	<i>Bacillus velezensis</i> NJ10-a/pHT01- <i>tesA</i>	本研究构建/Constructed in this study
NJ10-a-T6	<i>Bacillus velezensis</i> NJ10-a/pHT01- <i>burA</i>	本研究构建/Constructed in this study
NJ10-a-T7	<i>Bacillus velezensis</i> NJ10-a/pHT01- <i>srfAD-1</i>	本研究构建/Constructed in this study
NJ10-a-S1	<i>Bacillus velezensis</i> NJ10-a/pHT01- <i>sfj-3</i>	本研究构建/Constructed in this study
NJ10-a-S2	<i>Bacillus velezensis</i> NJ10-a/pHT01- <i>pcpS</i>	本研究构建/Constructed in this study
NJ10-a-S3	<i>Bacillus velezensis</i> NJ10-a/pHT01- <i>kirP</i>	本研究构建/Constructed in this study
NJ10-a-S4	<i>Bacillus velezensis</i> NJ10-a/pHT01- <i>sfj-1</i>	本研究构建/Constructed in this study
NJ10-a-S5	<i>Bacillus velezensis</i> NJ10-a/pHT01- <i>sfj-2</i>	本研究构建/Constructed in this study
NJ10-a-TS	<i>Bacillus velezensis</i> NJ10-a/pHT01- <i>TS</i>	本研究构建/Constructed in this study
NJ10-a-ST	<i>Bacillus velezensis</i> NJ10-a/pHT01- <i>ST</i>	本研究构建/Constructed in this study
NJ10-a-TRS	<i>Bacillus velezensis</i> NJ10-a/pHT01- <i>TRS</i>	本研究构建/Constructed in this study
NJ10-a-SRT	<i>Bacillus velezensis</i> NJ10-a/pHT01- <i>SRT</i>	本研究构建/Constructed in this study
NJ10-a-P	<i>Bacillus velezensis</i> NJ10-a/pHT01	本研究构建/Constructed in this study