



## 基本信息

启动子:	T7/lac
平台编号:	bio-00834
复制子:	ColE1 ori, F1 ori
终止子:	T7 terminator
质粒分类:	大肠杆菌载体; PET 系列表达质粒
质粒大小:	5933bp
质粒标签:	N-GST, N-6×His, N-Thrombin
原核抗性:	卡那霉素 Kan
克隆菌株:	DH5α
培养条件:	37°C, 有氧, LB
表达宿主:	BL21(DE3)
诱导方式:	IPTG 或乳糖及其类似物
5'测序引物:	T7:TAATACGACTCACTATAGGG
3'测序引物:	T7-ter:TGCTAGTTATTGCTCAGCGG

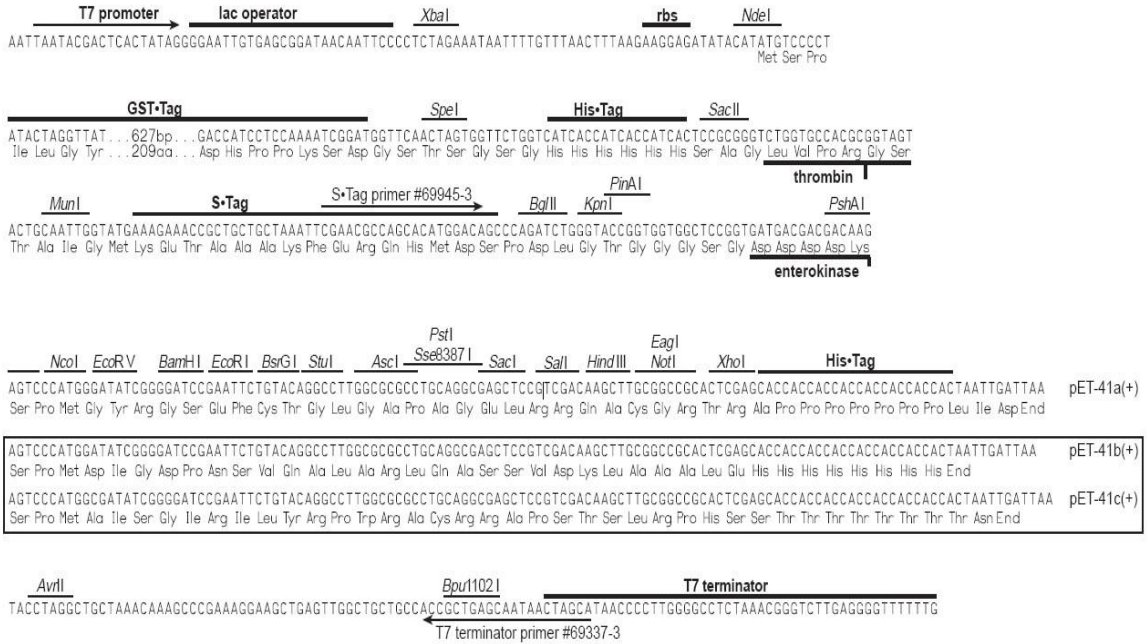
## 质粒简介

pET41 系列载体是设计用来克隆和高水平表达蛋白质的载体, 载体融合表达一个含有 220 个氨基酸的 GST 标签蛋白纯化片段。pET41a 载体的单一的多克隆位点见上面的环状质粒图谱。注意: 载体序列是以 pBR322 质粒的编码规矩进行编码的, 所以 T7 蛋白表达区在质粒图谱上面是反向的。

T7 RNA 聚合酶启动的克隆和表达区域在质粒图谱中也被标注了出来。质粒的 F1 复制子是被定向的, 所以在 T7 噬菌体聚合酶的作用下, 包含有蛋白编码序列的病毒粒子能够产生, 并启动蛋白表达, 同时蛋白表达将被 T7 终止子序列的作用下终止蛋白翻译。pET-41a 载体上面含有一个 EK 蛋白酶切位点, 当将目的基因使用载体上面的 PshAI 限制性内切酶位点插入进去时, 可以通过 EK 蛋白酶将载体上的融合的所有氨基酸序列包括 GST 标签序列, 全部切除掉。

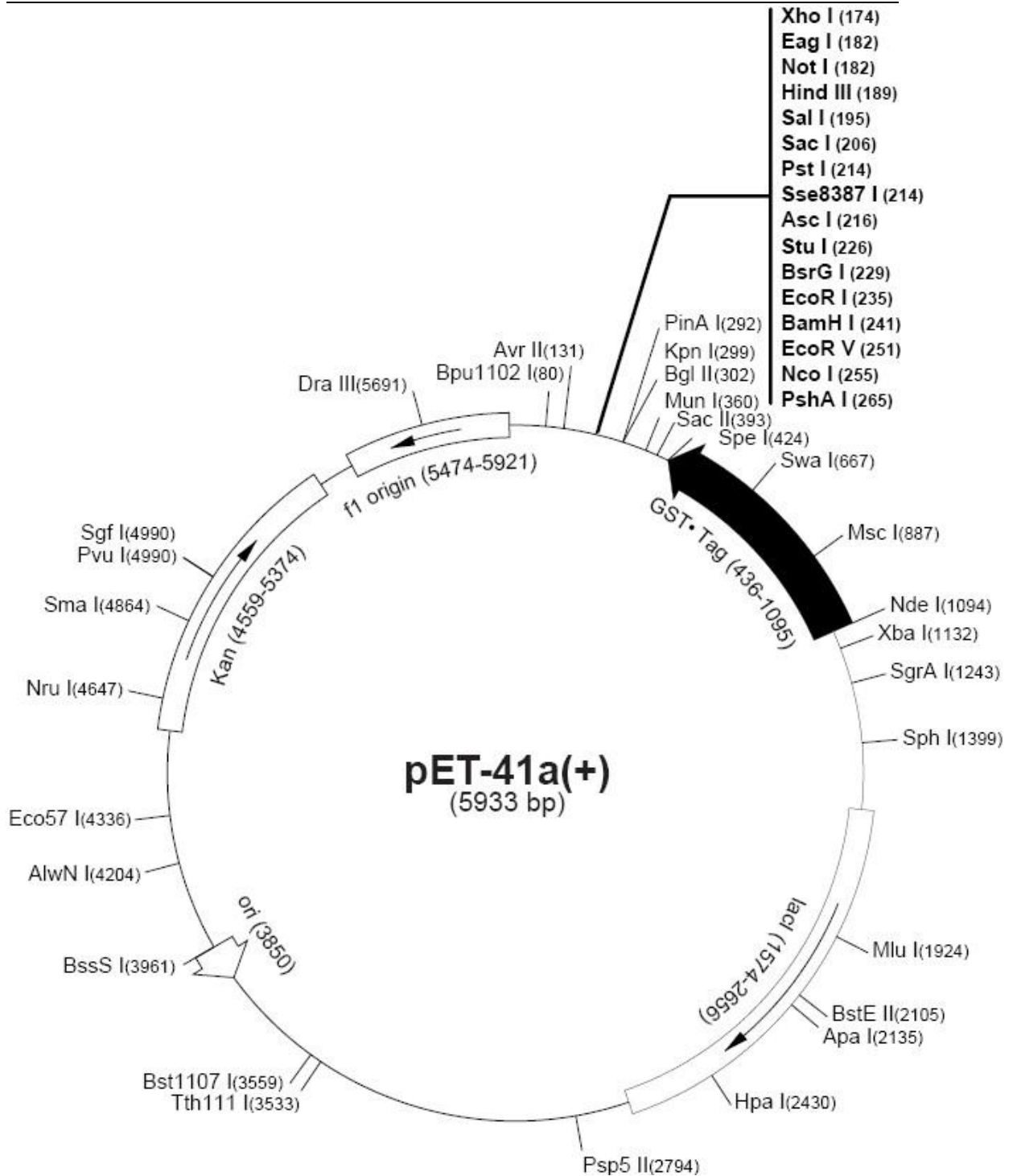


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## pET-41a(+) cloning/expression regions

### 质粒图谱



## 质粒序列

LOCUS Exported 5933 bp ds-DNA circular SYN 10-8-2015  
 DEFINITION synthetic circular DNA  
 ACCESSION .  
 VERSION .  
 KEYWORDS Untitled



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SOURCE synthetic DNA construct  
ORGANISM synthetic DNA construct  
REFERENCE 1 (bases 1 to 5933)  
AUTHORS .  
TITLE Direct Submission  
JOURNAL Exported 2015-8-10 from MLCC  
<http://www.miaolinhbio.com>

FEATURES Location/Qualifiers

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CDS complement(397..414)  
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VVL	
RBS	<pre>YMDPMCLDAFPKLVCFKKRIEAIPOIDKYLKSSKYIAWPLQGWQATFGGGDHPPK" 1103..1125 /note="efficient ribosome binding site from bacteriophage T7 gene 10 (Olins and Rangwala, 1989)"</pre>
protein_bind	<pre>1140..1164 /bound_moiety="lac repressor encoded by lacI" /note="lac operator" /note="The lac repressor binds to the lac operator to inhibit transcription in E. coli. This inhibition can be relieved by adding lactose or isopropyl-beta-D-thiogalactopyranoside (IPTG)."</pre>
promoter	<pre>complement(1165..1183) /note="T7 promoter" /note="promoter for bacteriophage T7 RNA polymerase"</pre>
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AEL	<pre>/translation="MKPVTLYDVAEYAGVSYQTVSRVNVQASHVSAKTRKVEAAM</pre>



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indicates direction of (+) strand synthesis"

## ORIGIN

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