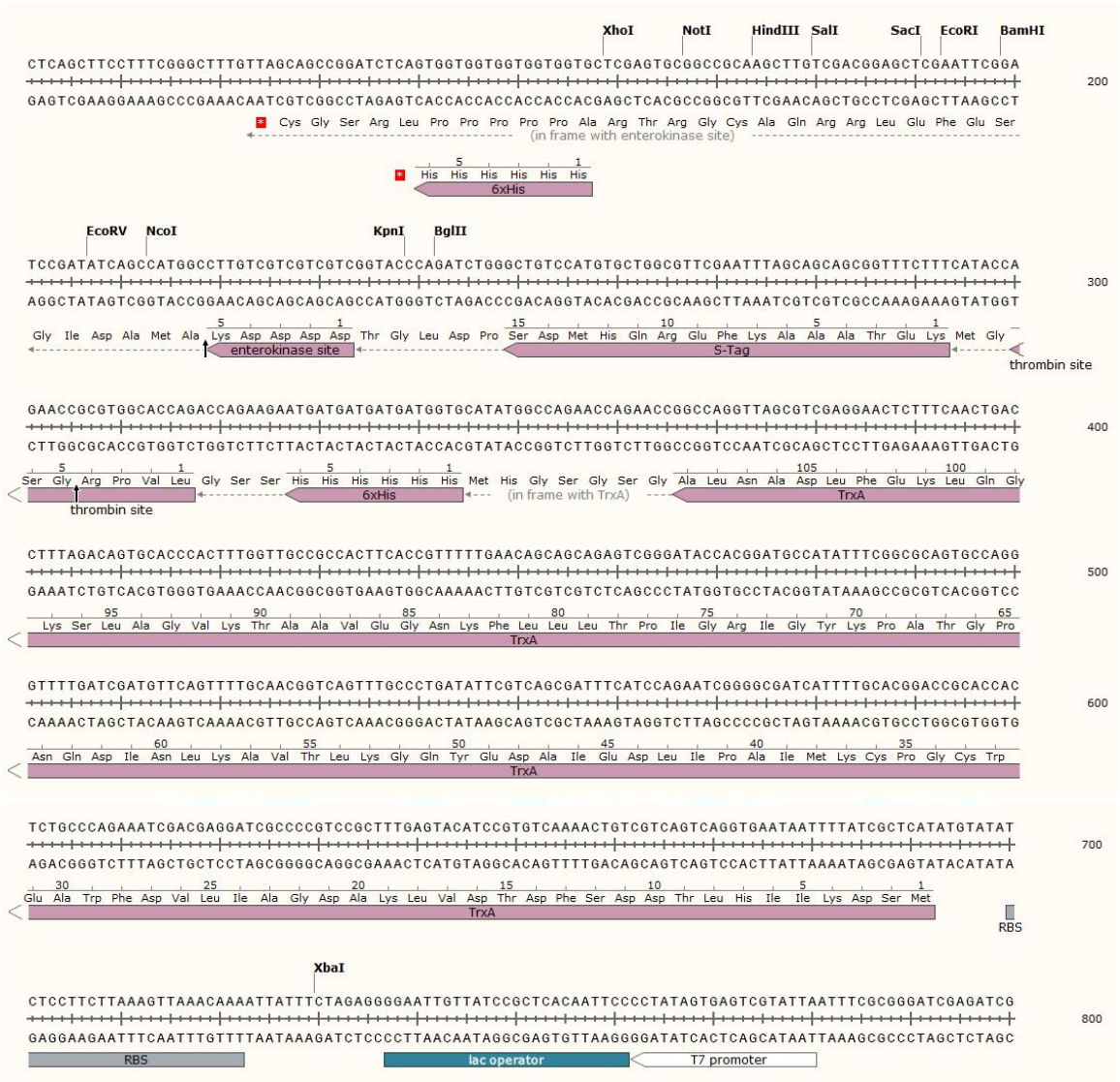
pET32a Vector Information

载体名称:	pET32a
质粒类型:	大肠杆菌蛋白表达载体，PET 系列表达质粒
高拷贝/低拷贝:	低拷贝
启动子:	T7 promoter，lacI promoter
克隆方法:	多克隆位点，限制性内切酶
克隆位点:	MCS
载体大小:	5900bp
5' 测序引物及序列:	T7: TAATACGACTCACTATAGGG
3' 测序引物及序列:	T7ter: TGCTAGTTATTGCTCAGCGG
载体标签:	6xHis，T7 tag
载体抗性:	Amp
筛选标记:	--

产品目录号:
稳定性: 瞬表达
组成型: 诱导型
病毒/非病毒: 非病毒
克隆菌株: DH5α/ Match-T1

MCS 区:

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LOCUS       Exported      5900 bp ds-DNA     circular SYN 01-JUN-2019
DEFINITION  synthetic circular DNA
ACCESSION   .
VERSION     .
KEYWORDS    pET32a
SOURCE      synthetic DNA construct
  ORGANISM  synthetic DNA construct
REFERENCE   1  (bases 1 to 5900)
  AUTHORS   .
  TITLE     Direct Submission
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  JOURNAL   Exported Saturday, June 1, 2019 from SnapGene 3.2.1
            http://www.snapgene.com
FEATURES             Location/Qualifiers
     source          1..5900
                     /organism="synthetic DNA construct"
                     /mol_type="other DNA"
     terminator      26..73
                     /note="T7 terminator"
                     /note="transcription terminator for bacteriophage T7 RNA
                     polymerase"
     CDS             complement(140..157)
                     /codon_start=1
                     /product="6xHis affinity tag"
                     /note="6xHis"
                     /translation="HHHHHH"
     CDS             complement(219..233)
                     /codon_start=1
                     /product="enterokinase recognition and cleavage site"
                     /note="enterokinase site"
                     /translation="DDDDK"
     CDS             complement(249..293)
                     /codon_start=1
                     /product="affinity and epitope tag derived from
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                     ribonuclease A"
                     /note="S-Tag"
                     /translation="KETAAAKFERQHMDS"
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                     /note="thrombin site"
                     /translation="LVPRGS"
     CDS             complement(327..344)
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                     /product="6xHis affinity tag"
                     /note="6xHis"
                     /translation="HHHHHH"
     CDS             complement(366..692)
                     /codon_start=1
                     /gene="trxA"
                     /product="E. coli thioredoxin"
                     /note="TrxA"

/translation="MSDKIIHLTDDSFDTDVLKADGAILVDFWAEWCGPCKMIAPILDE

IADEYQGKLTVAKLNIDQNPGTAPKYGIRGIPTLLLFKNGEVAATKVGALSKGQLKEFL
                     DANLA"
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     RBS             700..722
                     /note="efficient ribosome binding site from bacteriophage
                     T7 gene 10 (Olins and Rangwala, 1989)"
     protein_bind    737..761
                     /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)."
     promoter        complement(762..780)
                     /note="T7 promoter"
                     /note="promoter for bacteriophage T7 RNA polymerase"
     promoter        1093..1170
                     /gene="lacI"
                     /note="lacI promoter"
     CDS             1171..2253
                     /codon_start=1
                     /gene="lacI"
                     /product="lac repressor"
                     /note="lacI"
                     /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)."

/translation="MKPVTLYDVAEYAGVSYQTVSRVVNQASHVSAKTREKVEAAMAEL

NYIPNRVAQQLAGKQSLLIGVATSSLALHAPSQIVAAIKSRADQLGASVVVSMVERSGV

EACKAAVHNLLAQRVSGLIINYPLDDQDAIAVEAACTNVPALFLDVSDQTPINSIIFSH

EDGTRLGVEHLVALGHQQIALLAGPLSSVSARLRLAGWHKYLTRNQIQPIAEREGDWSA

MSGFQQTMQMLNEGIVPTAMLVANDQMALGAMRAITESGLRVGADISVVGYDDTEDSSC

YIPPLTTIKQDFRLLGQTSVDRLLQLSQGQAVKGNQLLPVSLVKRKTTLAPNTQTASPR
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     CDS             3062..3253
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                     /gene="rop"
                     /product="Rop protein, which maintains plasmids at low
copy
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                     /note="rop"

/translation="MTKQEKTALNMARFIRSQTLTLLEKLNELDADEQADICESLHDHA
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                     /note="basis of mobility region from pBR322"
     rep_origin      complement(3683..4271)
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                     /note="ori"
                     /note="high-copy-number ColE1/pMB1/pBR322/pUC origin of
                     replication"
     CDS             complement(4442..5302)
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                     /gene="bla"
                     /product="beta-lactamase"
                     /note="AmpR"
                     /note="confers resistance to ampicillin, carbenicillin,
and
                     related antibiotics"

/translation="MSIQHFRVALIPFFAAFCLPVFAHPETLVKVKDAEDQLGARVGYI

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EPELNEAIPNDERDTTMPAAMATTLRKLLTGELLTLASRQQLIDWMEADKVAGPLLRSA

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                     LIKHW"
     promoter        complement(5303..5407)
                     /gene="bla"
                     /note="AmpR promoter"
     rep_origin      complement(5434..5889)
                     /direction=LEFT
                     /note="f1 ori"
                     /note="f1 bacteriophage origin of replication; arrow
                     indicates direction of (+) strand synthesis"
ORIGIN
        1 ATCCGGATAT AGTTCCTCCT TTCAGCAAAA AACCCCTCAA GACCCGTTTA GAGGCCCCAA
       61 GGGGTTATGC TAGTTATTGC TCAGCGGTGG CAGCAGCCAA CTCAGCTTCC TTTCGGGCTT
      121 TGTTAGCAGC CGGATCTCAG TGGTGGTGGT GGTGGTGCTC GAGTGCGGCC GCAAGCTTGT
      181 CGACGGAGCT CGAATTCGGA TCCGATATCA GCCATGGCCT TGTCGTCGTC GTCGGTACCC
      241 AGATCTGGGC TGTCCATGTG CTGGCGTTCG AATTTAGCAG CAGCGGTTTC TTTCATACCA
      301 GAACCGCGTG GCACCAGACC AGAAGAATGA TGATGATGAT GGTGCATATG GCCAGAACCA
      361 GAACCGGCCA GGTTAGCGTC GAGGAACTCT TTCAACTGAC CTTTAGACAG TGCACCCACT
      421 TTGGTTGCCG CCACTTCACC GTTTTTGAAC AGCAGCAGAG TCGGGATACC ACGGATGCCA
      481 TATTTCGGCG CAGTGCCAGG GTTTTGATCG ATGTTCAGTT TTGCAACGGT CAGTTTGCCC
      541 TGATATTCGT CAGCGATTTC ATCCAGAATC GGGGCGATCA TTTTGCACGG ACCGCACCAC
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 601 TCTGCCCAGA AATCGACGAG GATCGCCCCG TCCGCTTTGA GTACATCCGT GTCAAAACTG
 661 TCGTCAGTCA GGTGAATAAT TTTATCGCTC ATATGTATAT CTCCTTCTTA AAGTTAAACA
 721 AAATTATTTC TAGAGGGGAA TTGTTATCCG CTCACAATTC CCCTATAGTG AGTCGTATTA
 781 ATTTCGCGGG ATCGAGATCG ATCTCGATCC TCTACGCCGG ACGCATCGTG GCCGGCATCA
 841 CCGGCGCCAC AGGTGCGGTT GCTGGCGCCT ATATCGCCGA CATCACCGAT GGGGAAGATC
 901 GGGCTCGCCA CTTCGGGCTC ATGAGCGCTT GTTTCGGCGT GGGTATGGTG GCAGGCCCCG
 961 TGGCCGGGGG ACTGTTGGGC GCCATCTCCT TGCATGCACC ATTCCTTGCG GCGGCGGTGC
1021 TCAACGGCCT CAACCTACTA CTGGGCTGCT TCCTAATGCA GGAGTCGCAT AAGGGAGAGC
1081 GTCGAGATCC CGGACACCAT CGAATGGCGC AAAACCTTTC GCGGTATGGC ATGATAGCGC
1141 CCGGAAGAGA GTCAATTCAG GGTGGTGAAT GTGAAACCAG TAACGTTATA CGATGTCGCA
1201 GAGTATGCCG GTGTCTCTTA TCAGACCGTT TCCCGCGTGG TGAACCAGGC CAGCCACGTT
1261 TCTGCGAAAA CGCGGGAAAA AGTGGAAGCG GCGATGGCGG AGCTGAATTA CATTCCCAAC
1321 CGCGTGGCAC AACAACTGGC GGGCAAACAG TCGTTGCTGA TTGGCGTTGC CACCTCCAGT
1381 CTGGCCCTGC ACGCGCCGTC GCAAATTGTC GCGGCGATTA AATCTCGCGC CGATCAACTG
1441 GGTGCCAGCG TGGTGGTGTC GATGGTAGAA CGAAGCGGCG TCGAAGCCTG TAAAGCGGCG
1501 GTGCACAATC TTCTCGCGCA ACGCGTCAGT GGGCTGATCA TTAACTATCC GCTGGATGAC
1561 CAGGATGCCA TTGCTGTGGA AGCTGCCTGC ACTAATGTTC CGGCGTTATT TCTTGATGTC
1621 TCTGACCAGA CACCCATCAA CAGTATTATT TTCTCCCATG AAGACGGTAC GCGACTGGGC
1681 GTGGAGCATC TGGTCGCATT GGGTCACCAG CAAATCGCGC TGTTAGCGGG CCCATTAAGT
1741 TCTGTCTCGG CGCGTCTGCG TCTGGCTGGC TGGCATAAAT ATCTCACTCG CAATCAAATT
1801 CAGCCGATAG CGGAACGGGA AGGCGACTGG AGTGCCATGT CCGGTTTTCA ACAAACCATG
1861 CAAATGCTGA ATGAGGGCAT CGTTCCCACT GCGATGCTGG TTGCCAACGA TCAGATGGCG
1921 CTGGGCGCAA TGCGCGCCAT TACCGAGTCC GGGCTGCGCG TTGGTGCGGA CATCTCGGTA
1981 GTGGGATACG ACGATACCGA AGACAGCTCA TGTTATATCC CGCCGTTAAC CACCATCAAA
2041 CAGGATTTTC GCCTGCTGGG GCAAACCAGC GTGGACCGCT TGCTGCAACT CTCTCAGGGC
2101 CAGGCGGTGA AGGGCAATCA GCTGTTGCCC GTCTCACTGG TGAAAAGAAA AACCACCCTG
2161 GCGCCCAATA CGCAAACCGC CTCTCCCCGC GCGTTGGCCG ATTCATTAAT GCAGCTGGCA
2221 CGACAGGTTT CCCGACTGGA AAGCGGGCAG TGAGCGCAAC GCAATTAATG TAAGTTAGCT
2281 CACTCATTAG GCACCGGGAT CTCGACCGAT GCCCTTGAGA GCCTTCAACC CAGTCAGCTC
2341 CTTCCGGTGG GCGCGGGGCA TGACTATCGT CGCCGCACTT ATGACTGTCT TCTTTATCAT
2401 GCAACTCGTA GGACAGGTGC CGGCAGCGCT CTGGGTCATT TTCGGCGAGG ACCGCTTTCG
2461 CTGGAGCGCG ACGATGATCG GCCTGTCGCT TGCGGTATTC GGAATCTTGC ACGCCCTCGC
2521 TCAAGCCTTC GTCACTGGTC CCGCCACCAA ACGTTTCGGC GAGAAGCAGG CCATTATCGC
2581 CGGCATGGCG GCCCCACGGG TGCGCATGAT CGTGCTCCTG TCGTTGAGGA CCCGGCTAGG
2641 CTGGCGGGGT TGCCTTACTG GTTAGCAGAA TGAATCACCG ATACGCGAGC GAACGTGAAG
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2941 CTCACAACGT TCCAGTAACC GGGCATGTTC ATCATCAGTA ACCCGTATCG TGAGCATCCT
3001 CTCTCGTTTC ATCGGTATCA TTACCCCCAT GAACAGAAAT CCCCCTTACA CGGAGGCATC
3061 AGTGACCAAA CAGGAAAAAA CCGCCCTTAA CATGGCCCGC TTTATCAGAA GCCAGACATT
3121 AACGCTTCTG GAGAAACTCA ACGAGCTGGA CGCGGATGAA CAGGCAGACA TCTGTGAATC
3181 GCTTCACGAC CACGCTGATG AGCTTTACCG CAGCTGCCTC GCGCGTTTCG GTGATGACGG
3241 TGAAAACCTC TGACACATGC AGCTCCCGGA GACGGTCACA GCTTGTCTGT AAGCGGATGC
3301 CGGGAGCAGA CAAGCCCGTC AGGGCGCGTC AGCGGGTGTT GGCGGGTGTC GGGGCGCAGC
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3421 CAGATTGTAC TGAGAGTGCA CCATATATGC GGTGTGAAAT ACCGCACAGA TGCGTAAGGA
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3601 CAGGGGATAA CGCAGGAAAG AACATGTGAG CAAAAGGCCA GCAAAAGGCC AGGAACCGTA
3661 AAAAGGCCGC GTTGCTGGCG TTTTTCCATA GGCTCCGCCC CCCTGACGAG CATCACAAAA
3721 ATCGACGCTC AAGTCAGAGG TGGCGAAACC CGACAGGACT ATAAAGATAC CAGGCGTTTC
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3961 ACCGCTGCGC CTTATCCGGT AACTATCGTC TTGAGTCCAA CCCGGTAAGA CACGACTTAT
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4621 ACCAGCCAGC CGGAAGGGCC GAGCGCAGAA GTGGTCCTGC AACTTTATCC GCCTCCATCC
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