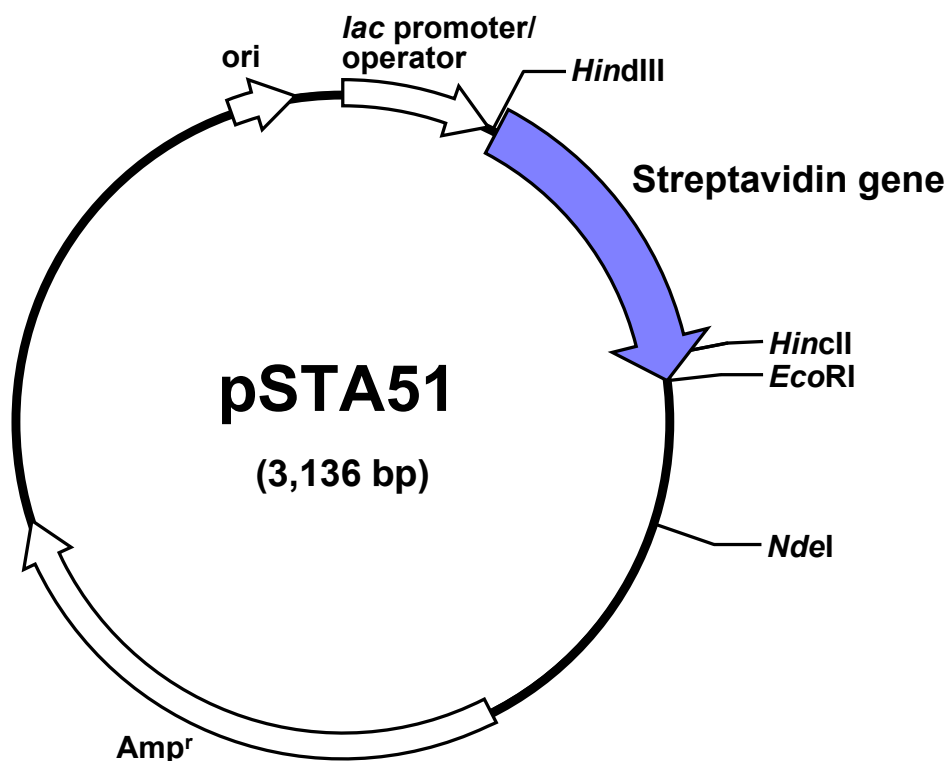


pSTA51	
Cat. No.	P-014
Gene/Insert name:	Streptavidin (<i>S. avidinii</i>)
Vector backbone:	pUC9-2
Vector type:	<i>E. coli</i>
Backbone size w/o insert (bp):	2,656
Bacterial resistance:	Ampicillin
Growth strain:	JM83
Growth temperature (°C):	37
Growth instructions:	pSTA51 is resistant to ampicillin (50 µg/mL)
High or low copy:	High copy
Vector map:	pSTA51
Coding sequence:	Nucleotide sequence & Amino acid sequence
Plasmid sequence:	pSTA51 (3,136 bp)
Restriction enzyme list:	Restriction enzyme sites of pSTA51
GenBank Accession No.:	X03591
Size:	10 µg
Terms and Licenses:	MTA
Laboratory Reagent For Research Use Only	

Streptavidin (*Streptomyces avidinii*)

Cat. No. P-014

Name: pSTA51
Insert: Streptavidin gene
Vector: pUC9-2



• DNA fragment:

*M T M I T P S C K L D P S --- V Q Q ****
atgaccatgattacgccaagctgcaagcttGAC-CCC-TCC-.....-GTT-CAG-CAG-TAGgaattc
HindIII *EcoRI*

• Feature for pSTA51:

Residue	Source	Comments
1-245	1-245	pUC9-2 backbone
1-230	1-230	<i>lac</i> promoter/operator
246-722	1-477	Streptavidin ORF
726-3,136	285-2,695	pUC9-2 backbone
2,963	2,522	ori: Origin of replication
1,335-2,195	849-1,754	Amp ^r : Ampicillin resistance gene

Ref.

- Streptavidin amino acid seq. & DNA seq.: GenBank Accession No. X03591
Inouye, S. et al. *Biochem. Biocsci. Biotechnol.* (2011) 75: 568-571.

Gene coding region (ORF: Streptavidin)

Nucleotide sequence

ATGACCATGATTACGCCAAGCTGCAAGCTT**GACCCCTCCAAGGACTCGAAGGCCAGGTCTCGGCCGCCG**
AGGCCGGCATCACCGGCACCTGGTACAACCAGCTCGGCTCGACCTTCATCGTGACCGCGGGCGCCGACGG
CGCCCTGACCGGAACCTACGAGTCGGCCGTCGGCAACGCCGAGAGCCGCTACGTCCTGACCGGTTCGTTAC
GACAGCGCCCCGGCCACCGACGGCAGCGGCACCGCCCTCGGTTGGACGGTGGCCTGGAAGAATAACTACC
GCAACGCCCACTCCGCGACCACGTGGAGCGGCCAGTACGTCGGCGGCCGAGGCGAGGATCAACACCCA
GTGGCTGCTGACCTCCGGCACCACCGAGGCCAACGCCTGGAAGTCCACGCTGGTCGGCCACGACACCTTC
ACCAAGGTGAAGCCGTCGCGCCCTCCATCGACGCGGCGAAGAAGGCCGGCGTCAACAACGGCAACCCGC
TCGACGCCGTTTCAGCAGTAGGAATTC

Amino acid sequence

MTMITP**SKLD****PSKDSKAQVSAEAGITGTWYNQLGSTFIVTAGADGALTGTYESAVGNAESRYVLTGRY**
DSAPATDGS**TALG****WTVAWKNNYRNAHSATTWSGQYVGGAEARINTQWLLTSGTTEANAWKSTLVGHDTF**
TKVKPSAASIDA**AKKAGV****NNGNPLDAVQQ*EF**

pSTA51 (3,136 bp)

GCGCCCAATACGCAAACC GCCTCTCCCCGCGCGTTGGCCGATTCATTAATGCAGCTGGCAGCAGAGTTT
 CCCGACTGGAAAAGCGGGCAGTGAGCGCAACGCAATTAATGTGAGTTAGCTCACTCATTAGGCACCCCAGG
 CTTTACACTTTATGCTTCCGGCTCGTATGTTGTGTGGAATTTGTGAGCGGATAACAATTTACACAGGAAA
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 GTTACGACAGCGCCCCGGCCACCGACGGCAGCGGCACCGCCCTCGGTTGGACGGTGGCCTGGAAGAATAA
 CTACCGCAACGCCCACTCCGCGACCACGTGGAGCGGCCAGTACGTTCGGCGGCCGCGAGGGCGAGGATCAAC
 ACCCAGTGGCTGCTGACCTCCGGCACCACCGAGGCCAACGCCCTGGAAGTCCACGCTGGTTCGGCCACGACA
 CCTTACCAAGGTGAAGCCGTCGCGCCCTCCATCGACGCGGCGAAGAAGGCCGGCGTCAACAACGGCAA
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 GAAAACCTGGCGTTACCCAACCTTAATCGCCTTGACGACATCCCCCTTTTCGCCAGCTGGCGTAATAGCG
 AAGAGGCCCGCACCGATCGCCCTTCCCAACAGTTGCGCAGCCTGAATGGCGAATGGCGCCTGATGCGGTA
 TTTTCTCCTTACGCATCTGTGCGGTATTTACACCCGCATATGGTGCACCTCAGTACAATCTGCTCTGAT
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 ACCGAAAACGCGGAGACGAAAAGGCCCTCGTGATACGCCTATTTTTATAGGTTAATGTCATGATAATAATG
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 GATCGGAGGACC GAAGGAGCTAACCGCTTTTTTGCACAACATGGGGGATCATGTAACCTCGCCTTGATCGT
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 CATGTTCTTTCTGCGTTATCCCTGATTTCTGTGGATAACCGTATTACCAGCTTTGAGTGAGCTGATACC
 GCTCGCCGAGCCGAACGACCGAGCGCAGCGAGTCACTGAGCGAGGAAGCGGAAGA

Residue	Source	Comments
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726-3,136	285-2,695	pUC9-2 backbone
2,963	2,522	ori: Origin of replication
1,335-2,195	849-1,754	Amp ^r : Ampicillin resistance gene

Restriction enzyme sites of pSTA51

Enzyme Name	Sequence	Count	Cutting Positions
AccI	GT!MKAC	0	-
ApaI	GGGCC!C	0	-
Asp718I	G!GTACC	0	-
BamHI	G!GATCC	0	-
BclI	T!GATCA	0	-
BglII	A!GATCT	0	-
EcoRI	G!AATTC	1	727
EcoRV	GAT!ATC	0	-
HincII	GTY!RAC	1	690
HindIII	A!AGCTT	1	241
KpnI	GGTAC!C	0	-
MluI	A!CGCGT	0	-
NcoI	C!CATGG	0	-
NdeI	CA!TATG	1	949
NheI	G!CTAGC	0	-
NotI	GC!GGCCGC	0	-
PstI	CTGCA!G	0	-
SacI	GAGCT!C	0	-
SalI	G!TCGAC	0	-
ScaI	AGT!ACT	1	1642
SmaI	CCC!GGG	0	-
StuI	AGG!CCT	0	-
XbaI	T!CTAGA	0	-
XhoI	C!TCGAG	0	-

Supplier	Contact us
JNC CORPORATION Shin Otemachi Bldg. 9F 2-2-1 Otemachi, Chiyoda-ku, Tokyo 100-8105 URL http://www.jnc-corp.co.jp	JNC Corporation, Yokohama Research Center 5-1 Okawa, Kanazawa-ku, Yokohama, Japan 236-8605 Tel: 045-786-5501 Fax: 045-786-5511 E-mail: biophoton@jnc-corp.co.jp