

Salmonella enterica subsp. enterica serovar Pullorum plasmid pSPUV, complete sequence

GenBank: JN885081.1

[FASTA Graphics](#)

LOCUS JN885081 86686 bp DNA circular BCT 06-APR-2020
DEFINITION Salmonella enterica subsp. enterica serovar Pullorum plasmid pSPUV,
complete sequence.
ACCESSION JN885081
VERSION JN885081.1
DBLINK BioSample: [SAMN14226166](#)
KEYWORDS .
SOURCE Salmonella enterica subsp. enterica serovar Pullorum
ORGANISM [Salmonella enterica subsp. enterica serovar Pullorum](#)
Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacterales;
Enterobacteriaceae; Salmonella.
REFERENCE 1 (bases 1 to 86686)
AUTHORS Feng,Y., Liu,J., Li,Y.G., Cao,F.L., Johnston,R.N., Zhou,J.,
Liu,G.R. and Liu,S.L.
TITLE Inheritance of the Salmonella virulence plasmids: Mostly vertical
and rarely horizontal
JOURNAL Infect. Genet. Evol. 12 (5), 1058-1063 (2012)
PUBMED [22449772](#)
REFERENCE 2 (bases 1 to 86686)
AUTHORS Feng,Y. and Liu,S.-L.
TITLE Direct Submission
JOURNAL Submitted (20-OCT-2011) Genome Research Center, Harbin Medical
University, XueFu Road No. 194, Harbin, Heilongjiang 150081, China
FEATURES Location/Qualifiers
source 1..86686
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Pullorum"
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/strain="RKS5078"
/serovar="Pullorum"
/sub_species="enterica"
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[CDS](#) 1..894
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PESLKNLIISALTISGQKTNIMGRAVNSQIIEELCQTNNCIVISARNYFHRESLVCRT
SVEGGVMLFIPKKFFLCGKPDINRLAGTPVLFHEGAKNFNLDTIYHFFKQTLGITNPA
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GGIQGQAERRPDLATLMVVNDAINQQIPTLLPYHFPHDQVELSLNLDVSLIEDIISES
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 LDSAIVDKIIFGHELNQSYCLNSIDEVEKEILNRYDIKRESSFIISAENYIAPIIGEC
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[CDS](#) complement(7515..8102)
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[gene](#) complement(8834..9322)

[CDS](#)

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[gene](#)

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[CDS](#)

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[gene](#)

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complement(10069..10851)
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[CDS](#)

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[gene](#)

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complement(10886..11407)
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[CDS](#)

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CDS       complement(11404..11694)
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gene      complement(11696..12001)
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CDS       complement(11696..12001)
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gene      complement(12003..12221)
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CDS       complement(12003..12221)
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CDS       12548..12676

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CDS      complement(14191..15039)
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[CDS](#) complement(15065..15211)

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[CDS](#) complement(15201..15320)

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/locus_tag="pSPUV_025"

[CDS](#) complement(15487..15699)

/gene="faeA"

/locus_tag="pSPUV_025"

/codon_start=1

/transl_table=[11](#)

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FaeA"

/protein_id="[AFC61042.1](#)"

/translation="MSNDACDKILSFMQSQANGRINIPVTRRSIADAAGLTIYQARAY
LVTIEGAGVVEKMNAGKGVSGRWRLV"

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[CDS](#) complement(15772..16344)

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VEYAGVENLHVLCTSGLLPGVITDETGQRF"

gene      complement(16317..17171)
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CDS       complement(16317..17171)
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GVVRLEARGKLAKGQVRYGEITFTASHVLAWQDSTTAEKGWSVVSGNVTPDAAQEIKR
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gene      complement(17376..18140)
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CDS       complement(17376..18140)
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GDLQGNGLPPQTQVMPAGQTPGVLTFLDSEGPVWLREMTVSSVSGLSRFSDAALRQV
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gene      complement(18168..18965)
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CDS       complement(18168..18965)
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CDS complement(19201..19524)
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CDS 19817..19960
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gene 21627..22550

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[CDS](#)

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LFGDTSARVSANYSIEMPDSNFSTSVLYEVLAKIDKIGSKPDFTLSPITYVRCVGNTAS  
GCMTEPVTVSVDVTNGHRIQVTGLVTGGDLISINTGRVDLPEGKLTNLVNTVSSGG  
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[gene](#)

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[CDS](#)

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[gene](#)

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[CDS](#)

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/protein_id="AFC61052.1"  
/translation="MIPLPSGTKIWLVAKVQTVLKDDPMSGHLFIFRGHSGSQVKLLW  
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[gene](#)

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23333..23509  
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[CDS](#)

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and unwinding protein TraI"
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[CDS](#)

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[gene](#)

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[CDS](#)

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[CDS](#)

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[gene](#)

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[CDS](#)

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[CDS](#)

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[CDS](#)

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[CDS](#)

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[CDS](#)

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[CDS](#)

complement(45999..46307)

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/protein_id="[AFC61075.1](#)"

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[gene](#)

complement(46326..47318)

/gene="traU"

/locus_tag="pSPUV_059"

[CDS](#)

complement(46326..47318)

/gene="traU"

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gene complement(48305..50952)
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gene complement(51348..51815)
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CDS complement(51348..51815)
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gene complement(52164..52679)
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CDS complement(52164..52679)
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/codon_start=1
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gene      complement(52676..52891)
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CDS       complement(52676..52891)
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gene      complement(52878..53474)
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CDS       complement(52878..53474)
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ITGAEYYAADIDQSLSQTGWLLWGLLALLYTAVAVMIGDRPYRHNPLTYAYDTATNNL
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gene      complement(53464..54885)
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          /locus_tag="pSPUV_069"

CDS       complement(53464..54885)
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          /locus_tag="pSPUV_069"
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protein TraB"
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GAVPPPTAFYPGNGVTPPPQVTVQSVVFNRIQRKTFSDAAAKKDPSLPYIPSGSFA
KTMLEI GADANASVTGNESTVPMQLRITGPVEMPNSKTYDLTGCFVGLEAWGDVSSER
AIVRTRNISCLKDGTIDMPVKGHVSFRGKNGIKGEVVMRNGKILGWAWGAGFVDGIG
QGMERASQPAVGLGATATYGAGDVFRMGIGGGASKAAQTLSDYYIKRAEQYHPVIPIG
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[gene](#)

complement(54885..55625)

/gene="traK"

/locus_tag="pSPUV_070"

[CDS](#)

complement(54885..55625)

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/locus_tag="pSPUV_070"

/codon_start=1

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protein TraK"

/protein_id="[AFC61086.1](#)"

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IAVSNTPDNLFTVPGDRITAVSGLDGMTNSEETGTGGVVVATVSKKPFTFILERG
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AVMFSQPVSQILAGARMDVYVIRDGEGS"

[gene](#)

complement(55612..56178)

/gene="traE"

/locus_tag="pSPUV_071"

[CDS](#)

complement(55612..56178)

/gene="traE"

/locus_tag="pSPUV_071"

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protein TraE"

/protein_id="[AFC61087.1](#)"

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GAQNEMKVILAEERARIKADNVNSAFFQTSVRVWPQYGRVEIRGVLKTWIGDSKPFTD
IKHYILILKRENGVTWLDNFGETDDAKK"

[gene](#)

complement(56200..56511)

/gene="traL"

/locus_tag="pSPUV_072"

[CDS](#)

complement(56200..56511)

/gene="traL"

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gene      complement(56526..56888)
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CDS       complement(56526..56888)
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          /locus_tag="pSPUV_073"
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TraA"
          /protein_id="AFC61089.1"
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FPQLAMAAGGSQDLMASGNGTVKATFGKDSSAVKWWILA EVLVGAVMYMMTKNVKFLA
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          /locus_tag="pSPUV_074"
CDS       complement(56930..57325)
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          /locus_tag="pSPUV_074"
          /codon_start=1
          /transl_table=11
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TraY"
          /protein_id="AFC61090.1"
          /translation="MKRFGTRSATGKMVKLKL PVDVEKLLREASDRSGRSRSFEAVIR
LKDHLH RYPKFN RKGNVYGKSLVKYLTMRLDDET NQLLITAKNRSGWCKTDEAADRVI
DHLTKFPDFYNSDIFREANEGKKSTFKER"
gene      complement(57424..58104)
          /gene="traJ"
          /locus_tag="pSPUV_075"
CDS       complement(57424..58104)
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TraJ"
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VMGIINNC"
gene      complement(58308..58688)
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CDS       complement(58308..58688)
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          /locus_tag="pSPUV_076"
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transduction protein TraM"
          /protein_id="AFC61092.1"
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LGLRVYEAQMERKESAFNQMEFNRVLLENVLKTQSSVVKILGIGSISPHVAGNPKFEY
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gene      58973..59581
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CDS       58973..59581
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gene      complement(59892..60062)
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CDS       complement(59892..60062)
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WMIAEQFRECKS"
gene      complement(60104..60710)
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/pseudo
gene      complement(60813..60983)
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CDS       complement(60813..60983)
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TGFTEGIKGERC"
gene      complement(61057..61185)
/locus_tag="pSPUV_081"
CDS       complement(61057..61185)
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/note="FIG01046939"
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gene      complement(61220..61825)
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CDS       complement(61220..61825)
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SHGEYCPLPLSVDVQAELFPEVIHARTDRMQREKIAFNKMRREEKALEHAWLLRQN
LLGQAMTELNFQSPETVNAWYTRWADEFDARELAQGFQWRTRFTSLTSLDWLRDSDE
PLYNVMYEIWFIVRENPVYVREAERWQVPNKLTNRRPGRLP"
gene      complement(61813..62001)
/gene="psiB"
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CDS       complement(61813..62001)

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AVEHVCPFCHMRVLFAC"
gene      complement(62044..64027)
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/pseudo
gene      complement(64096..64209)
/locus_tag="pSPUV_085"
CDS      complement(64096..64209)
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/codon_start=1
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gene      complement(64196..64552)
/gene="ssbB"
/locus_tag="pSPUV_086"
CDS      complement(64196..64552)
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/locus_tag="pSPUV_086"
/codon_start=1
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/product="Single-stranded DNA-binding protein"
/protein_id="AFC61100.1"
/translation="MAARGVNKVILVGHIGQDPEVRYMPNGGAVANLTATSETWRVR
QDGEMREHTEWHRVVVFGKLAETASEYLRKGAQVYIEGQLRTRKWTQSGQDKYTTEV
IVNGRRSGDAPSLGCA"
gene      complement(64583..64711)
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CDS      complement(64583..64711)
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gene      64879..65001
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[CDS](#)

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/translation="MSRNPPQRRDAARETALRLTARQPYYRGAKSAGNGAPGAA"

[gene](#)

65047..65367

[CDS](#)

65047..65367
/locus_tag="pSPUV_089"
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/product="hypothetical protein"
/protein_id="[AFC61103.1](#)"
/translation="METRCPEGAGQRQRSWLGAQHSDPGSRQGSRPASAKSFREYQQQNEQEQQEQEQEQEQEQEQEQEQEQEQEQEQEQEQEQEQEAAYYHRQENHTPRPEKNI TRHA"

[gene](#)

complement(65325..65693)

[CDS](#)

complement(65325..65693)
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/EC_number="[2.7.7.7](#)"
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/protein_id="[AFC61104.1](#)"
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[gene](#)

complement(65884..66318)

[CDS](#)

complement(65884..66318)
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/product="Putative cytoplasmic protein"
/protein_id="[AFC61105.1](#)"
/translation="MYGTvSTICCDLLKVYENHEKIaVIIWCEGDVREMGAeFNPTSDIqAVLRAIGESDSDAlWRDGIGQNfVEgVLRELVALRppRQIAVPEDVLRtLLPLMEAGMNLPryQTQDrAAEEETalDTLRYllSTNIPAHNLTEGNy"

[gene](#)

complement(66385..66819)

/locus_tag="pSPUV_092"

CDS complement(66385..66819)
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WMPEYNGGFWHFIRLPEGGGYMMPDCDRVHMINGENWFDRTVSADAAGIILTSLAINR
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gene complement(67315..68079)

/locus_tag="pSPUV_093"

CDS complement(67315..68079)

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/note="FIG01046113"

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VLSAAEILALTTHLCQPLNYGRAQLLTASAQRLAGTPVRLHLYPVQAYPHPATVRECT
EIRLPYAQEWLTADLEYADLLAFLKASADRVCEIVRQDTKRIAAALAPSGESRLMEKRI
GNWRLLADEYDHDNWLDEEDEDGLDKVLDAVLVRNARFCVLLTLVNEPEEEIEAAGV
ITDCLRFPGEPVRRWLDRRVLRDVVNEARSFTGNIR"

gene complement(68151..68564)

/locus_tag="pSPUV_094"

CDS complement(68151..68564)

/locus_tag="pSPUV_094"

/note="FIG01046678"

/codon_start=1

/transl_table=11

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/protein_id="AFC61108.1"

/translation="MMYGTRKELNSKLKRMFGNDERFALLIWTKQDVMSLTAMTEVE
ADAILREIGRKGMEHTGDGISDSTVQALYAGLRTEIPTVSVPADLLARVTNIAGRAL
DTEDAQAWPLVCQEYPGVADAQVDIARLRQLALAA"

gene complement(68620..68841)

/locus_tag="pSPUV_095"

CDS complement(68620..68841)

/locus_tag="pSPUV_095"

/codon_start=1

/transl_table=11

/product="putative cytoplasmic protein"

/protein_id="AFC61109.1"

/translation="MNYSGHEKLRAEVAALANSMDLRATLKVLEERYHWQRHGLTER"

LAGQSLRRINTLLDEAYNESLMLNECFKD"

[gene](#) complement (68841..69521)
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/protein_id="[AFC61110.1](#)"
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SKSAYVGYRHECAYVLAKGRPALPQNPLPDVLGWKYSGNRHHPTKEPVTSLQPLIESF
THTNAIVLAPFAGSASTCVAALQAGRRYIGIELMEQYHKAGIERLTAVQRAMQRPAAN
DVFYPEAA"

[gene](#) complement (69666..69857)
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YYAPGTRLLMNALQAAFAA"

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[CDS](#) complement (69903..70259)
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MGRTWWPSLKREDDRRHWEYETGVVWFNSIILLDDVENSILRGLKFLDAWTVTGSTDA
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[gene](#) complement (70252..70722)
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[CDS](#) complement (70252..70722)
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/protein_id="[AFC61113.1](#)"

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/translation="MFRVTCIDLENGEFALYINGHYLSSEDSGSEKLYLGDILERLSR
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gene      complement(70859..70987)
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CDS       complement(70859..70987)
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CDS       71233..71655
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/protein_id="AFC61115.1"
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KPRIALLPINPAYPTLYPEELQIFGVVTAFIHKTRSTD"
gene      71655..72929
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CDS       71655..72929
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(UmuC) "
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GVLALTLHNQKRTEKLLSLQPVEEIWGVGRRISKKLNTMGITTALQLARANPTFIRKN
FNVVLERTVRELNGESCISLEEAPPPKQQIVCSRSFGERVTTYEAMRQAVCQHAERAA
EKLRGERQFCRHIAVFVKTSPPFAVTEPYGNLASEKLLIPTQDTRDIIAAVRALDRI
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gene complement(73011..73985)
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CDS complement(73011..73985)
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 /protein_id="[AFC61117.1](#)"
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 FNQKEIAELEGLSQAKVTRALQAAAVPQELISLFPVQSELSFSQDYKILLEVNEKLSEK
 GLTSEGLIQSVSDQHDAILSDYERPDDEQKSSILKLISQASQALIAPPPKEKSVISAL
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gene complement(73985..75190)
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CDS complement(73985..75190)
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 /protein_id="[AFC61118.1](#)"
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 DRFDKAFTIFVCNLKGGGSKTVSTASLSHAFAHPQLLFEDLRILAI DFDPQASLTMF
 LSHENSVGLVENTAAQAMLQNVSR EELLSDFIVSSII PGVDVIPASIDDAFLAEGWKG
 LCEEHLPGQNIHAVLKENIIDKLRYDYDFIFLDSGPHLDAFLKNCIGAADMLTPLPP
 ATVDFHSSLKFVASLPALIDSIEQDGHTCNLIGNVGFMSKILNKSDHKICHSQAKEVF
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 EFIRTNGGM"

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CDS 75605..76546
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TVIPDDEIAGHRSMALTLQKHIHQRDALVDR LAPILLAGYLSSSQVISLVHYIV
QAGETSDAEAFVRELAQRVPQHGDA LMTIAQQLEQKGIEKGIQLGEQRGIEKGRSEGE
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[gene](#)

complement(76578..77144)

/locus_tag="pSPUV_106"

[CDS](#)

complement(76578..77144)

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/note="FIG01046430"

/codon_start=1

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LKQRRFSRDVTPDIEWLLKQGRQMGVSAKLASKLNYLWRSCTGELSEQNDFRLTYAL
ETAKDMHWNRYRLSDREWSGRNAVALSAGVNGIYLSRAKLDVGFNDSGRQINSLTARL
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[gene](#)

complement(77201..77614)

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[CDS](#)

complement(77201..77614)

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[gene](#)

complement(77589..77708)

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[CDS](#)

complement(77589..77708)

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/note="FIG01046078"

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/transl_table=[11](#)

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