

Orf virus strain NZ2, complete genome

GenBank: DQ184476.1

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LOCUS DQ184476 137820 bp DNA linear VRL 22-FEB-2006

DEFINITION Orf virus strain NZ2, complete genome.

ACCESSION DQ184476

VERSION DQ184476.1

KEYWORDS .

SOURCE Orf virus

ORGANISM [Orf virus](#)

Viruses; Varidnaviria; Bamfordvirae; Nucleocytoviricota;
Pokkesviricetes; Chitovirales; Poxviridae; Chordopoxvirinae;
Parapoxvirus.

REFERENCE 1 (bases 1 to 137820)

AUTHORS Mercer,A.A., Ueda,N., Friederichs,S.M., Hofmann,K., Fraser,K.M.,
Bateman,T. and Fleming,S.B.

TITLE Comparative analysis of genome sequences of three isolates of Orf
virus reveals unexpected sequence variation

JOURNAL Virus Res. 116 (1-2), 146-158 (2006)

PUBMED [16274827](#)

REFERENCE 2 (bases 1 to 137820)

AUTHORS Mercer,A.A., Ueda,N., Friederichs,S.-M., Hofman,K., Fraser,K.M.,
Bateman,T. and Fleming,S.B.

TITLE Direct Submission

JOURNAL Submitted (22-AUG-2005) Microbiology, University of Otago, Dunedin,
New Zealand

FEATURES Location/Qualifiers

source 1..137820
/organism="Orf virus"
/mol_type="genomic DNA"
/strain="NZ2"

/db_xref="taxon:[10258](#)"
/country="New Zealand"

[CDS](#) complement(2822..3271)

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[CDS](#) complement(3434..3787)

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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](#)

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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

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[CDS](#)

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[CDS](#)

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[CDS](#)

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[CDS](#)

complement(34742..35911)
/note="ORFV034"
/codon_start=1
/product="telomere binding protein"
/protein_id="[ABA00551.1](#)"
/translation="MNHFFKQIGAGVRKPATRLTPSGAHEIRLFTVPVELPEFIYNNE
NLFQKPVNSVDTVLKALAVASAFREEWEAVRALARALQAAGVHVCDVFFSPVGWMAGT
APPPGAHA AVRVPSPAASAARAVKQTVRALRPAAAMVPGEAREDAVVEVQEFSSAYA
GHGPPPVGVMAVCPFDQDASVLVLF FGRTQDAHCGIAYRCATRTETDRMLATLLPIVS
ELHVVCDDVGRSTVTRHRGGGAATQFPDDRVT SIVGVVHPFDRHQFPSAPSASPSSDL
VLYAPKR FVFVVDLPSGVDIRCASRSGTDFVTHINGRKLDAVLVIVKDAFMAGVTMDG
VFQKENLVWRGKYTYRVTKSSFVEFPEFRGKAGGHPPDGRVLASREFVTRSLYTVL"

[CDS](#)

complement(35908..37200)
/note="ORFV035"
/codon_start=1

/product="virion core protease"
/protein_id="ABA00552.1"
/translation="MDKYTDLVSVKIPELGFTNLLCHISVVGLSAHLDVDNFKTNCN
GYVVRRFDESATAGRVSCIPLAALLDFAKRGILDAAPPDTEKDEVAQKTALLASLKGR
YGFREAIALEWKVPLGFFFKPSLREKVSEAVDFSQMPNLNVDDLARAGVSTGVNTKVVP
IAIKPDRSAWMSNVSIQSLVAPFAFGTEVAYLGQFNLNFLNGAAIHEKADRFRNCMVS
LTLKDKIERAGRRYVMFGFCYMFHWKCCIFDTVSRLVSFYDSGGNSPSEFHPCKYFYF
YSFSDGFNVNAETADLDNRNCDVDVLMRFFVDNFKARRGCINLEVNQIMESECGMFTC
IFMILCTIKHPENFRALRCIYTYFRFLADKKMTLLKSI LFDPTAPKLEAVEVLSGDMK
EYMKMERWTRKSVQVLSEIRITSRINSLPPEPEKPAAP"

[CDS](#)

37206..39257
/note="ORFV036"
/codon_start=1
/product="RNA helicase"
/protein_id="ABA00553.1"
/translation="MENHLPDMLMFPNCVSVFPFEYSLEDVFRLEPEERRRAFAMAVFP
LSKHRWRGARLQORDERSVWLSVEEDRGRALDERNCWLSDVAAARMVDEGRAVTPEAY
AFMRAAPGARVAELAADAGVLAVAGGNALRVFSSESTQAREGWKARSVGVLGNAAP
LAPVPLASLRPEVQRELFAAWIGRRPVVLTGGTGVGKTSQVPKLLMWFNYLFGGFERL
DAVREFAERPLVLSLPRVTLVRAHTATYLASLGFGSADGSPVSPRYGAIPDAERNTAP
RAYGLVVATHRLTLTAIRRYDTVVVDEIHEHDQMGDIVVAVARKLGSNMRSVLMTAT
LEDDRARLEEFLLDRPAFVHIEGDTLFPPIREVYVKNQQPPLSRKYAEELQNVAAQALG
TFVPEQKCGILFVATVAQCALFAETIEAKHPGLLVRVVHGKVPSVAAVLEEYVAAADR
PAVLVSTPYLESSVTVRTATHVYDTGRVYVPEPFGGRETFVSKSMYTQRKGRVGRVAP
GTYVRFFDTRLALPLKRIDSEFLHPYVLYARIFGLTLPDDLQPSDLALLRTEEYV
DGFGISLSRWTQLLDRHYMHMVEYAKVYVRGGRLAAALDAFERTGVMTEATEAIRAV
DMLAAVLNVRKSKDRYRAECKVLFGPFAGKKFVVAGRRPPGSHVLMVTDVRFIEAEP
F"

[CDS](#)

complement(39232..41043)
/note="ORFV037"
/codon_start=1
/product="Zn-protease, virion morphogenesis"
/protein_id="ABA00554.1"
/translation="MIVLENGVRVFLRPSMKRDVYLGISNFGFGRDVGAVLGLAHLLE
HVLISFDHRFFLANASTSRNYMSFWCKSRNRNPADAVRELASWFFDGGGLRTNFENV
IRAYAKELENEYFRNEVLHCFDVLTFLLGGGDLNGGRFADLVTTPLPARMRERMLS
ISGPSVVVFLRQSDAATVALLNATFGRLPRTPEVIFPRAVACEGGKAVMMATPFYSIL
ARVHASLDNALAVLALRELYHLFDYETVGEDLFVVLSFVDES DYDGLLRGIKDLPIAA
TPDTRICFDAEDYAMNAYLNFPWMAHDI LDYENYFVENAERLVAGLKRDVLHAISERD
CVVLYPGFTSSIFNAEDAQRHRLVMIDLPPESPGDKMRRRSHNDGAPARLMRKRTRTPG
NVLVREFGDADLLNFVTLALSMHADARLFHTFEGIRLQHLAAEDMDAIMDSDAFMKFS
KSRPAVAYQYMFLDFFASERSIEDIVENRAAARRAAGAPHLVFGRNTRYDVVACSSFV
CGVLKGRALRADHINALMWRMKGVIYSMDHTPLKSPHTFYVFAFSLSQEEAFRCIA
RCPHVTSYCLVVARRGVADDFSGVSKKVVLRMGARPR"

[CDS](#) complement(41054..41386)
/note="ORFV039"
/codon_start=1
/product="hypothetical protein"
/protein_id="ABA00556.1"
/translation="MSWAVEFVLFAAFLAAAYVFTFLPTNKMQLAVRELADAHAWRQR
TDAQLDGISETVLFPRPDAPQSSAVIAGMDSRRARVTVAHGREKSTFDLKRRGDVQTL
LPILLGK"

[CDS](#) 41380..42075
/note="ORFV038"
/codon_start=1
/product="late transcription factor elongation factor"
/protein_id="ABA00555.1"
/translation="MTFRELILFHAATHVVTGDPEAPRRAASLCRGFGVDFRAIHAEF
ARRYPRTAAVERAQPPLPEVDAAFPDARRQVVRLRLEAAALVVKESRALSASMRGVA
VVDGCCVRVCRANDELLEFLARRYDPAVYRYAEVPSPSVRPGSKVFACAGRSVTFAAA
HRSRITANRPLRVVTEACVDGVLARGAAEVFDRGSGVLPALREIFYRLDEDGCPTG
QTPGFADSMASRS"

[CDS](#) complement(42000..42413)
/note="ORFV040"
/codon_start=1
/product="glutaredoxin-like protein"
/protein_id="ABA00557.1"
/translation="MASDASPTAAKLTLLLGKPLCSVCEVTRMLARLEGEMELKCV
NILSLFAKDGAVNVLMGVYRLITEVTEHFGNEYVLLKYPVAKTMAAVDIRSFVVV
AQIDEKKVDIDQLRDAILSAKPGVWVPVGPSSRR"

[CDS](#) 42416..43774
/note="ORFV041"
/codon_start=1
/product="hypothetical protein"
/protein_id="ABA00558.1"
/translation="MGIKNLKALLSHGALTPHEPGGDERFPAVFVDGFSVMMTMAYS
CADEDEFRAAVEERVQHWMSVSESGRIVVFLDRGEIPIKQPLRDQRRKATRDRAARHR
EFIAAAEADAAAEAVGAREDKQEDEHAEFAEEIRAQKQLKLRIRFQLSIANHEVVKS
LIESTLARAGDAVEIVFCDGVDAMVMCARGRAEAERRGRWPLLVTDDQDALLFTSTD
RDEKIVSTVSACYAFRPTETTEYLCKLAALANGCDFFPGLGGICSVSVESLRRATLFPE
FSVRNAAVSLCTRPMRLSTQDALEPEAAA EVVEFIRRYAAGDERIYREVPPGACCGRA
FVRGALAAEWADALPAATGLSVVADMIACLPARRDPAPEEVERLLALEARARGARVTD
AMLAQTAQLLGYGASAGADGASAFVSGAKGLMCRLRGTTAMFFNAEYVEIESEPRLK
LR"

[CDS](#) 43776..43967
/note="ORFV042"
/codon_start=1
/product="RNA polymerase subunit RPO7"

[CDS](#)

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/protein_id="ABA00559.1"  
/translation="MVFPIVCSTCGRDLSSHERFLLIVRQRPLKVVLRVTRNVCCRIKL  
STQIEPHRNLTVLPMLDIS"
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43986..44543

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/note="ORFV043"
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/codon_start=1
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/product="hypothetical protein"
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/protein_id="ABA00560.1"
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/translation="MREFGLAARMARAIEDVCPRGAVIFVSSAASMTDCLNPSVFKHA  
AIYAGRVDRAPLPPSPVPAAEAVTEPCAIDAIAPYGARVVLLSELLRSCVAVQAYRLA  
VPGALALMNLAAADAFELVGTPYGFNSDRTYCFKLVDACFASVGVTTKTRRIMGRDVS  
LSQDFLESWMWTKVLDSAAEPPWLVS"
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[CDS](#)

complement(44540..45733)

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/note="ORFV044"
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/codon_start=1
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/product="virion core protein"
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/protein_id="ABA00561.1"
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/translation="MESSKQAPRAGARVFESLLKFVVRGAACGCLSSTVDVEAKARLL  
PGSSPQRRQAQIANAIHDLCIANVRVTTREDLVEALARLRRRFVHAGNSADLARLHGAL  
MRFTHTSTSFFAVCVPTVRVTLATLVASVLVGELMQAVDMAEAVERVIYTKNRPMASEL  
ADLLELKYGLVNMAQYKLPALMKEAGCCDELVRAGAPDACADSVAEEMEAERLLDMPV  
RSSALSRLCDFMVRRGASPVHAASEFAAGLKIEEMPADADSAAAPVPAPAAADFGSVV  
ARTEDLLERARKESRGEVLDGAVSSPLGVVGSSPFDGITLEKFVLLLEYLHVMKMLANC  
IEQRSCKERIRVSVNTQPFRTTSATPTPVDPAETADAEAQCRALQQRLQVARPVLGTR  
APPLF"
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[CDS](#)

45766..46566

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/note="ORFV045"
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/codon_start=1
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/product="late transcription factor"
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/protein_id="ABA00562.1"
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/translation="MTLRIKLEKLKQIVTYFSEFSEEVSVNVDVGGLMYIFAALGGS  
VNIWTIVPLSASVVYDGDVSRVFNLPVLKVKACLCSEFHPDSVVSLEPDLEDNVVRLSS  
HHVVSVDNDNEPVAHRTNTAICLGINQRKSYVFNFRRYEEKCCGRITVNLDLLLGFIK  
CIHQYQYITVCFRDKKMVLHTPGKVDNFFREYSMTWAPDLERFSFKIPISSVNKLGR  
FKKRVVMFESRVVMDADDNIIIGMLFTDRVGMVRVNVFMSFQDRSLSCD"
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[CDS](#)

46573..47577

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/note="ORFV046"
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/codon_start=1
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/product="myristylprotein"
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/protein_id="ABA00563.1"
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/translation="MGGSVSLPSRDLPPFVRTPEMNIVPERDLADTMARLSTADPPQP  
LGVGDDARMAVLKTTTFPEFAISRPA TGMLAAQRIRYDGDPRVCCGGFGISHYWEKGAR  
RSNVAFEGAALRTCDPTRFDAGACDALLFRECAAGGVDADFCAHWINA AVTRRTDRQS  
RARLNDMFVRDCQNDAARPHCVAWIRAMRSARATADDGLIDAVLSVQSPEFKGKHMRC"
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SYSPATLAMAANVDEPRECWDPECVAGNVDFMLSDNYTNLGLCRLSRCSIGVTHLRI
DARSRLRMRCAGALAGLTKAPVNQTVVVGDNLARAPEPRVETLSVLALCVVYLLIVWL
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CDS

47578..48312
/note="ORFV047"
/codon_start=1
/product="IMV protein"
/protein_id="ABA00564.1"
/translation="MGAAASIQTTVTVSERIRNELEQSASASATADCDVTIGSLIIR
KNLGCSVSVRNMCSANAGAQLDAVMKAVSSTFNDLSSDQKAYVPGLLTAALNIQTTVN
TAVKDFETYMKQTCTADAVVHNKIKIQNIVMEECASLPGSPATHLDFVNTGTAVGNCG
VKAVMDVLAKASTTVRNDQEAGKGYQTIIIAIVVAILAAIFAWYARHMLFMSTSDKIK
LELAKKPVVHWTYLDTFTEFPSPV"

CDS

48358..48630
/note="ORFV048"
/codon_start=1
/product="hypothetical protein"
/protein_id="ABA00565.1"
/translation="MVRRLERVDGIVEHSRADRRYLEAIQRHLEGSTPGLRQMWRF
LYDLLLTVFVVMYIVFRLIVRNPGICAILALAAVYYLFLCLFSMD"

CDS

complement(48637..49893)
/note="ORFV049"
/codon_start=1
/product="hypothetical protein"
/protein_id="ABA00566.1"
/translation="MEEKRGRAKGEFARFGASRQAFRRGRGRGAPTGSTPEYVHRRVT
FAPNAGRTRDGTSPAAQPTGDEADVGRDNRDFFDASDEASKSNKLREAPARRASRP
AATARVERSSPPEPAPSRVPARITSPAAHPSSGVGFLERRICDDVTAFTPVAMGMGE
EEAGCWIELSTMVRCRKAVGFVCCRSPHCPSTGMLTVCFESFGGWSCAQMRCADRPC
AISDATAFQIVAILYHLYQRSIFLDDICLDVVSVPACTLTVSVSQLVFQMSTSSLVVL
SPKTRLYRASLPQACYMDVVRLLMPAGSRFLCGGGGCAYFFEWIIRNHLDLLSKQFAD
MFRVQRRSVSGPPLHRAEPGALVLVSTNDAVVLGVTLTEVSVSDNVRVIWSADGSVF
EIDDFPVQDVFAAPELVTRARAMVCL"

CDS

49923..50702
/note="ORFV050"
/codon_start=1
/product="virion core protein"
/protein_id="ABA00567.1"
/translation="MTNLLSLVPEDLAFCAFGFSPFDETMVIAGARVRFPRSLLSLF
NVVPRMTTRYETELVGTEMVVGAVFTTAYNVRNRLGLGEEPVTMRDIEKYFLDSENEV
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NASYREVGSSLALVTRYAGLQLVDVHTPSSVLTVSAVYGFTEDKGLKKLGSDKELADY
QSTPLTDPIRLSDFSNIQFDGVKKSIIQLTNVPVPSTGAEAAP"

CDS

50725..51111

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/feature "ORFV051"
/codon_start 1
/product "membrane protein"
/protein_id "ABA00568.1"
/translation "MAAPTTPAVHLTPVFVEPTIAHSLLRAESYLAIAVLELVLALAL
ALVFFRDELGSLFRCAPRAPSPLDAYLQASLVCDGDALLIELPEGRVPALALDGRPVA
FPGCESLLYRINGPRKVRLVDVLGGR"
51065..51520
/feature "ORFV052"
/codon_start 1
/product "virion protein"
/protein_id "ABA00569.1"
/translation "MDHEKYVLMSFLEEDNSFFSFVAALSDDEALGAVQSAAALLDFL
LSVVVRGKEKLAAAGHHYDSIADGRARAAFEFRDLRELAQLFDRRPGVQDRVRVRDG
PARAFVDAALGLMRERGFDTQAERARYIAPNDLPALGAISATLSPGL"
51590..52600
/feature "ORFV053"
/codon_start 1
/product "poly(A) polymerase subunit"
/protein_id "ABA00570.1"
/translation "MEGVEMDKPLLYFDEIAGARDYDAAFAEKHEPPKIPGRGQMKLL
VCELVFLNRLHLHGMLDGSVIVYVGSAPGRHICCLHSHFQELGVSLKWVLIDGRKHDP
CLSGLRNVTTVTRFADEAYLRELRLGELRRRAKIVLISDIRSNRVDTEPTTADLLRDYAL
QNTMVSVLKPVASSLKWRCPPFDSWEKDFYVPCGKEMLQPFAPPFSAEMRLTLTYSET
RPKLRLITLSDAVNYEKRMFYLN SVVRQRVILNFDYPNQEYDFHMFCLSSVVCSE
FKSPKEKVLSLQNRFFRFLRIPPSITLGLRRHDEPPQHAVPGQDPLPKGRGKKRPLRG
GK"
52515..53075
/feature "ORFV054"
/codon_start 1
/product "RNA polymerase subunit RPO22"
/protein_id "ABA00571.1"
/translation "MNRHNTRYLAKILCLKA VRSDPFAVVS RDTVRMYDIEVEYGD L
VTVVTVTHKLETSRTVFQVFNETSVAYSPLPDDYGEPIVLT TTYMQREHTKFPLSMLYI
DVVASDMFPTFKRPTEEEAAVVAAMQ RVGGRREPVLKLPRLDTELVCKILHLPEHPL
RVVRFLRRNMFTGVEVADRSVSVVLD"
53026..53529
/feature "ORFV055"
/codon_start 1
/product "late membrane protein"
/protein_id "ABA00572.1"
/translation "MFFRRRAAPPTAPGPDAPDEEIYAFCD AHPDDERCAC LKPSQAV
VDTGRDTRLPYWCWYAPCKRADALLPRALKKNIAGCNVSDC VISLGDVVRVADAVVRLT
NACGSKVDSTAERFQAKYLNQHVFPVADPRAWLPLCLVAAASLTVLPFVSRGPRTPS

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[CDS](#)

GRRPPRP"
53613..57482
/note="ORFV056"
/codon_start=1
/product="RNA polymerase subunit RPO147"
/protein_id="ABA00573.1"
/translation="MSVVARVSYSLYSQSEISATDVVISQLKNDEDLGTVKDPRLGAS
DGSICRTCGLTEMECFGHWGKVRIYESYIVRPEYIPEVVRLLNHLCVRCGLLRSDPY
TTDLAALSVHEMRKMKDRMMSKKKACWNSKCLQPYQKIVFSKKKICFVNKVEIPVPN
ALIYQKLTSIHRKFWPILLEVFQDPANLFYKEYMPVPPLLIRPAISFWIDNIPKETNEL
TYLLGMIVKYCSMAEEQVIQRAVIEYDNIKIISNSSSSINLSYIIAGKSNMLRSFVV
ARRKDQTARSVIGPDSALSVCVEVGIPDYIRNTLTQKVFVNYLTSKRVRALFEDRAVKF
YFNKRLRQLTRIKEGKFIKDKIHLLPGDWVEIPMSEGTNVIFGRQPSLHRHNVISSTA
RASPGYTIKIPPGIANSQNADFDGDEEWAVLEQNPKSVIEQSVLMYPVTIFKHDAHGA
PVYGSIQDEIVAFAFSLFRHQNLSDLDEVNLNLLGRYGRDFAPEPGQKTFSGADVFRFMIG
ADINFKGVLENGRVVAPNVDSDLVAMRATSLAGLIADYATNVEGVRVDMASYVYKR
YLAIYFGVTFRDLRPDPSLVRRLHALNTEKIEQIKDAYSRYLQDVADGKLVPMAPAD
EADALDSLLANLTNLNVREINEYMRETLERNPDNSLLKMARAGYKVNPTELMYLLGTY
GQQRVNGAVAETKIYGRVLPYAFPSADPEARGYIINSLMNGLSGSQFYFAMLVARSQ
STDIVCETSRTGT LARKVIKKMEDTVVDGYGQIVSGSVLLKYAANYAKIPGSTTKPVE
LLFPHESMTWFLEISALWTKIRHGFVRMHRQRLATKILAPFNFLVFVKPAPSEAEALS
ARDLYHMIQRMNDVREKYFFSLANVDFMEYVFLTHLNPSRVIRTRATAELIFRKLYQ
KLNALLGGGTPVGIMSAQVLCEKFTQQALSSFHTTEKSGAAKVKLGFNEFSNLISMSR
NHTEIVALTAPSADKLMPLKVNFEFVCLGELVPEIETRPSGRPSVHRVDITVHRLRIK
RAHLTEVLVDTIIERFVSFNVLVKEWGSMDTVEGDRVITYTLLLRFEPEQLNFHKFML
VLPGAANKGKVS RFKIPITETTVYDDFDAARKAYRMNIELMSLKELGIFDLEDVNVVP
GMWNTFDIFGIEAARGHLCEMLDITYGTGFDYLFPSCDLLASLLCSGYEPESVNKFKF
WNASALKKATFGDGRALLNAALHNRTDAVADNSSCHFFSKTPCVGTGYKYFVNVEMF
MRMEREIQARVAARKMEEIEEAEAEF"

[CDS](#)

complement(57531..58076)
/note="ORFV057"
/codon_start=1
/product="tyrosine phosphatase, virus assembly"
/protein_id="ABA00574.1"
/translation="MGDKSEWYARLLLRCTRAGPPLALPSGMTRLTDHVYLGSAEDAR
AVLRGDSGVDFKCLVNMTMSKYSTPAGITAYHIPLRDDD TTNIASIMPALVKLLARLE
AEQKPTLVHCVAGVNRSGAAAMGYVMHKRLAENPTMTQPARFVYFLKTYEIRD LRGA
FLENANFRYQLIKMFVCDSPS"

[CDS](#)

58096..58671
/note="ORFV058"
/codon_start=1
/product="IMV, viral entry"
/protein_id="ABA00575.1"
/translation="MADVTTLTANGLTLEFARERALRSLRAARTSTLVFFTLTLAASL

FVLWLQLTEFPVFEELGKYARIKSAVRSWRPLVEAKTEIESDLGRQKTADRPELFEFR
CVDFGKFYLPVRYSPPTFLPQAVRRGAGDGMMVHKAAAVDLAAQQFCESVLRHRANNV
ITCGSEMMRLVGYSYGFEDDHWCAATSGVLT"

CDS

complement (58676..59680)
/note="ORFV059"
/codon_start=1
/product="immunodominant envelope protein"
/protein_id="ABA00576.1"
/translation="MDPPEITAYIIIGVAEGRGTKEVFPTLPYLVLGLADDPKPKQPAPAP
PSPAPAPAPAPAPAPKPSPPAPHPKGDHVLKAVEWKDVDSKDYPHFFTDMCKSTCPKE
MQRRAAHHLNLWESISAGTVPTKYSDDDFILVVDNDMTFRKPEMVKPLIEAMKANGWY
MTQLKETYMTGALATNVPGTGDPELMVYPGGYDVSLDAYIISVGGMKKLYDAIIKEGG
LRSGLLTEVFTLEKRLSLARVVLSGAEQVVYPEYYIQVKTRLSGAPSLWSLLATWLAR
FWPGAIYFLTTPLFSEFMGLFDVDVVDIFILAYLLVLVLLLPNSRLLWFIAGLLVTAIV
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CDS

complement (59681..62095)
/note="ORFV060"
/codon_start=1
/product="RNA-polymerase associated RAP94"
/protein_id="ABA00577.1"
/translation="MDSRESILASIVPKIRAYMRDPNTATKSYTDFIAENKSIFVVNL
YNVDAITEDDIRLLFATMEQNPADDDATLISIFSYIGYKFEKQVRDDATASLSVGERI
ADDTRHSMYEMFFNTFDMVIRQRRVNLVHDDATGEAVVVQRTSDLRATFDDAAEPAV
REIPFNMRNMLQYVSKNLDRIKFSKKYLEFAYLCRHIGIPVSRKLNLRVVMYELDG
ARVPIVIRDFLDVKKVFLAATDKVYPNNFAEEQPAAVEWGRAFDAMAADARRLLYKY
VFLSSRHLCDLFPALLNARDAKFRPASRTALVREPPGWGEGVRFESPPCEHQIRLAV
AMRVDVDYFAKINEFVEEFVYFEDGMAYCRICGMNIPDLNTDASGARAGVVVPATNKS
IFLSEPYSYFHSQRIFINIVMSFDTIMKTQTWAVKYNINRLILNFLIAINARRQEYE
RRFAAEIKRGVFFLRSLANLLDVHASATELFQSAKTLNLFIVALVIVLNSSADFLVS
FMASRSAKKTKDASVEVTESTLRSLIATAVHHFLVKTRVCGKEDFDTVMLLTEVYTSI
MPPELEAHYRRLVAELHRLNTIGRTTRSRNYLVESYADAGEARAVEFFASQRVGARPM
RTPPRARPTVCAEVARPAETPAESPDARAEFQDIMSDSRVLIRVHDTNAYNMKRFEDH
IKIEIEKKKIIISLASLFVTNTMKYYYANPAMYVFRFSDPYPFDETLTSAEHVAHKVN
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MINFNN"

CDS

62204..62890
/note="ORFV061"
/codon_start=1
/product="late transcription factor VLTf4"
/protein_id="ABA00578.1"
/translation="MSSWRLKMSKCSGSSSVQTLLEDLRNRLRSEALGNDCQEPRDDL
PSGEECLDIDGPCPCDEAEQEIDQEQLPVPETVPEPPAKTPKRRPVKKDKADKADKDK
STRGAKKPCPSDDKDELKSNVDNNEESGDTDGGASARSPSIDNVDEMDDSDLMVA
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CDS

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RKKKAAACKK"  
62915..63871  
/note="ORFV062"  
/codon_start=1  
/product="topoisomerase I"  
/protein_id="ABA00579.1"  
/translation="MRALHLSDGKLFDDKELTQVPDDNPAYAVLAKIRIPPHLSDVV  
VYEQDLESAQQGLIFVGRDAKGRKQYFYGRGHVERRTAVRNAVFVRVHRVMNKINAFI  
DDHLASGSEAEAQMAAFLMETSFFIRVGKTRYERESGTVGMLTLRNKHLAEAGGEE  
IRVAFVGKDRVAHEFAVREGQRLFAALRRLWDPGAPDRLLFDRLSERRVYTFMRRFGI  
RVKDLRTYGVNYTFLYNFWSNVRSLERPSVKSLICTSVRQTAETVGHTPSISRSAYM  
ATAVLELVRDGAFLDRVAATDTLDDFVDIVVDYVNNSEQVNG"
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CDS

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63864..64280  
/note="ORFV063"  
/codon_start=1  
/product="hypothetical protein"  
/protein_id="ABA00580.1"  
/translation="MDEALRVAARVVDGLRPLDVAVCLAQLRGAAPERFPALDECSE  
EAFLDFEFAGGDVASRYLSAHTRELRAAERREHMAAIARCVTEADLALADRPRGKARA  
ALRVCNRNREKVARLARLLRDAESSGADFAFIRAABA"
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CDS

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64315..66840  
/note="ORFV064"  
/codon_start=1  
/product="mRNA capping enzyme subunit"  
/protein_id="ABA00581.1"  
/translation="MDAPSLDCMLAALAAKASVDRGAPEDVHHEVELVLVDPPLST  
LAATLRLASETESFILFTVTALAKEEGKLRARVPMSRVVGLDVKNVQLVNAIDSIVWE  
RKALVEETALQEGCLLRHSTERRHLFVDYKKYLSAIRVELVNRVVRVSKEVVADFKFK  
YFLGSGAQAKSSLLHALNHPKVRPSPTLEFEVVPAGEAVDEAAVLAEALRAVAKALFMA  
PTDAVFLAPPAEMPVRTLMLQKQEI PALDL DGLFAVSKTDGVSASVCVDEGDGVFCFS  
HLAYTIRYPLAREVQGRYRLWCEAVRPVGERVWSMFVLVVEEPAGDDRVA AVAGAVEA  
LRGV CARVEFKPKRVDGPFSATSELVEHIKSALQTEPEGVVL FYARGEKSKRDLKVKR  
DNTVDQT TNVMFRYMSSEPIVFGEGSTFLEFKRYSNDRGFPKEYGAGRIFLREDVVYH  
NNIYCIEFTKTHLEVGLRSVVVPVKFIGEFSQEGYLLRPRLAKTECYFRNPSFYGNQH  
SVVLEHTRDQLLSVGDFVDESMAAVGQTLANDA FRINPDTPYFTNRRTRGPLGVLSN  
YVKTL MISLYCSKTFLNNAERRKVLAVDFGNGADLEKYFFGEIASMVATDPDARA IER  
AMERYNRLNAGLKSRYYKFNYIQETIRSETYVESIRQVMYFGRFNIVDWQMAIHYSFH  
PRHFATVMRNLRELTA PGCKVLITMDGDFLSTLSEKTSFVINRNLQESENFMSIERV  
ADDQVMVYAPSTMAQPMTEYIVRRADIVKLFADNGFDLVDHANFETVIRRSRRFVEGV  
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CDS

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[CDS](#)

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67256..67921  
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/product="virion protein"
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[CDS](#)

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PPLRLRVAPPGAPPRTRLCENPAMLRFAVGVFGAQLGEASENEKVFAAFDKARSC  
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67921..68616  
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/codon_start=1  
/product="uracil-DNA glycosylase"
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[CDS](#)

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/protein_id="ABA00584.1"  
/translation="MATPANAPALLVAALRHRPYRVEYHPDWEPVIETLVDEYDAVAP  
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68630..70993  
/note="ORFV068"  
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/product="NTPase"
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[CDS](#)

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SDNVLLRALDTAVYRRGATLRVVGTRKTPESSAVHRMQSPDDDIKDYLFVVELSDAS  
VYFELAEREQHTLSTVCWETSYPFGDAMRVCQAVVNDIVNLRDITEDNFLDTPLVI  
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FAAADSEAMRRLVGVIDDIQPDTPENADNRALYERAMSSALCGATKTIVVFFYGDTM  
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71000..72907
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VSMAVLGPLNLVNNLDVLFQAQDKDLYPNLRISNGVLYGNELTKLDISCKFKFFISKV
GAMRGKHFIYFSNSTYGSLVIRNVMLSNGYSEFGGSQSNNPHTTPDGRAKTFAIVTSK
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ILGRAVRKFSYADVAAPVNVYLMAAVYSDFDEDIVSLEDYSVEDINALPFDVKKLFYL
KFKAKETNRVYAILQE LSDAYSARPHQLVDVVLGEIVRQFFARHCRVPAEDAALVAA
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NFRKEVS VVNI"

[CDS](#)

72944..73516

/note="ORFV070"
/codon_start=1
/product="RNA polymerase subunit RPO18"
/protein_id="[ABA00587.1](#)"
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ATDIEVCLGNEMPLGRIVNNAVVS VPCNVTFKYRVGDTVSGTLNVEDET NVFVDCG
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GVPAEEKDEKKDEGEKAAEEETPASPAKN"

[CDS](#)

73546..74220

/note="ORFV071"
/codon_start=1
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/protein_id="[ABA00588.1](#)"
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RRVSICAVLT TTDGLV VACRRRYSFLSSELAETRSPARRVLLATKHADALARLGAARP
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AII FTGAVALSSAEVAKQFRPNDEVKGLVFLHPEDAEGVGMARLA AFARCAARLRCW
GAAVTR"

[CDS](#)

complement(74210..76126)

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PARTVYNYLAKNIPMGRGKLLCLTATPVVNSVKEFSMAVNLLRPGVVGQTPLFNGGAL

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VTGIEMLLLYFRAFGVSSVEFSSRTRDTRAKLVDAFNACDNTDGEKIKVCVFSLSGSE
GLSFLSINDIFILDMTWNEASLRQIVGRAVRLNSHEMTPPDRRYVNVHFVVARQDSGA
ATVDEDLLALIRDKSRQFTQLFRVLKRCSEWVREAFDTDFAPLEDDSGWSALVARPAD
ARGPARAARLADGQSVWYSTSTALVTVRKGFLERGGRLFDDDGNFLTALGDPPTVRVS
GGRLVYVVDPASIA"

[CDS](#)

complement(76189..76755)
/note="ORFV073"
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/product="hypothetical protein"
/protein_id="[ABA00590.1](#)"
/translation="MEGRARFSPRLHIPAARAALGPHLHFPRRLVLRHCGVRAVFGD
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RARLRRRGRNRSSKRRAEQKRFCNYCP"

[CDS](#)

complement(76802..77671)
/note="ORFV074"
/codon_start=1
/product="mRNA capping enzyme"
/protein_id="[ABA00591.1](#)"
/translation="MDAVEAVRRSIREGLSVTLPTFDSTPALDLQLGVGHLPSLAYGT
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LDLSARNRLYRKERGAIRSNNHLTENNLYVADYHAITFAVMRPLLEITQERFVVLKLP
TLFGTDVVHALRVYCSLFGTVRLFKCVSDSWLKDSAVMVASEPRRAAIAAFVTHVRER
TKAAAWRDALAVPFRVLKDPVESEFVDRFVAFASRVYEALYVTHSLLYESMTSEKSI
ENESQRKLKLLQ"

[CDS](#)

complement(77712..79349)
/note="ORFV075"
/codon_start=1
/product="rifampicin resistance, membrane protein"
/protein_id="[ABA00592.1](#)"
/translation="MNNSVSVSLVGDDAVRRASVFATDHRAPTVMYPQYITTGQVVD
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ADKTFSTLKLSDSKVTVTNPNVACVMVYDETFDAKLAKKEFPYSMELSFIGYMKVN
LCPRPAFIEMPRRVEQINHTTAVITDVHACTSLSVYMKPVLSDANNRIFISYPGFQQS
EGDFVMAFVERLLEDMVIVSNCYPEGFPETAIEIVEPPSGVVSIDQTDVFRIDDPV
GMRVFLHTNILVFATRKNVSVYNMSKKFSAITGAYSRAISRIRFTTAHSVNIIGDASV
PVGWVTCQRNVYNGDNRSPEARAKDLFVADPFLKGVDFKNKIDVIARMVRFNGEVLY
SENSAVSRVFGEILGKTPGVRTLQFNFTPTFFSPTALNSNVSRGKDKLAVRVTTAAM
EAHNPLMYVPRQMVCNEVYRLSYDAGIVAELVTAQ"

[CDS](#)

complement(79370..79822)

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/codon_start 1
/product "late transcription factor VLTf2"
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LRAADGTCWFCRQVRGTAALAVETLDGGAVGEFCSRLCRDSFAGSIRHLVALREEPKI
ELLPLEMYADPDRVALINETRATEGVYGRCYLEPDGRTVVMALKSLI"
complement(79861..80535)
/feature "ORFV077"
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/product "late transcription factor VLTf3"
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KDYKLVFEIINQVKNEKLDLSTEKINEVIEIFKQLVFFCQEITPTKTINYSFFLDKIF
EVTGVTRNLRPQTVKNYAKNNSNQLTWENFLAHMRARKRAAQIPEFGHEYVFSPARFA
ACSLDL"
complement(80532..80780)
/feature "ORFV078"
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/product "thioredoxin-like protein"
/protein_id "ABA00595.1"
/translation "MGDNVWFAAYSVELDPPRRCTRCSLNLTRVINEDPENARMLLLS
QPGRRALAGFLQFCRTRTLDTKVLDRILRVLGLEQA"
complement(80791..82821)
/feature "ORFV079"
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/product "virion core, P4b precursor"
/protein_id "ABA00596.1"
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SMSSYQNLISATQFQSVHFQDMSSSGDLLFSFKSSDSVGFVHPHPIAMALFGVKLPAIES
AFVNGDSLSELLAQHLHNSRVRPNNYQLLVNKLTEETPIVMPGVGDSVSMEIQRAVLHT
NLRRCILNLRMGVFYCESDESIDNALMKIIHPSCASIMTDEEQILASIFSIVSFKPTL
VSVSRPSFGTGIGGMGDMAMHTVPYLVVDSSKMITTSTAPIHVGGEQPFSCAEAGRV
LYMPAQNMGAVSRDVAASVCAASGYLYERDRAPVITNGVLVFLVNRGGMASGDCF
TNMRPVISDIPIEVSQDMMLNGIMYRLVSAVCYRVGDGIDNCSGADAFANGYCTILFT
DAGPWLYDPMTVLSRSAREARLRRAMRNTFAQESGAGGDGQCLNEWLRGDGAAMAQ
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complement(82837..83841)
/feature "ORFV080"
/codon_start 1

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EEVDSVDKYTVKEAGRYYSRLKSATACMQRPPTGQSPLAPSLPRGAKVQSTPLNV
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PACPAPAATCPAPAPAPACPPATAPTCTPPAACAPACPPSTRQCAPPAPPLPTKPAPA
AKPIFLQQSLPPPQYPASSCPTIKAPAAASPVLESRVDPKVINADNDKDFIKKELADIA
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[CDS](#)

83880..84398
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/codon_start=1
/product="RNA-polymerase subunit RPO19"
/protein_id="ABA00598.1"
/translation="MEESVAVEYADEDEDEIEEYEEEDDDEEEESAEGAAASSVSDVA
LSAAEKLVAASEVPDDAAAADTNVRQRTARVEELKARYTRRMSLFELTGIVAESFNLL
CRGRLPLVADAADPALDNEKLVVRELEEGVCPIVIEKNGEFLSPGDFDPECLRYHLT
YMTDLWKSQGRM"

[CDS](#)

complement(84405..85541)
/note="ORFV082"
/codon_start=1
/product="hypothetical protein"
/protein_id="ABA00599.1"
/translation="MDRLRTCYERFYDISRDHLSRGTGLCVDCLDFDTPDVTLVSMVP
VLESSVCPIAPEMSEADVLALMKHFNYQALSFWFLKSNVAKSVYNSITDAEEKREFA
RVFRDVLAAQTLVSLNAMYRNMRNDTEEIIDDSKKIMEMISHVRGASGANAVMKILQ
SHYSFLVKCLNKVFSDENYVLKLVAVFDNSLMTDKQKLKEYQELLRVSASAEHGIRC
VSDLEVGSVSVEGDRAKYLAFMKKVMSSMLVFQNKDLKPAKFATVVCKLYVVLYNEFK
TNVEIGKLVRDVFVSLREKFSPQDLKSVGVKNIQTLVRYVANHRALYKEVLAREYW
EGSLVDIAQSVISENGITYCGRPIVVRELLDMLKEKIAEAAESA"

[CDS](#)

complement(85577..87697)
/note="ORFV083"
/codon_start=1
/product="early transcription factor"
/protein_id="ABA00600.1"
/translation="MLYTVAPQLVVLVGRHQEIERVLYLSLYDSVDEASPIYFFAKQY
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REFANLDLNMNVETKFNNIFRTNLRESGLRAIAQQSPDKRAEVGDFDILLSKTDDFFV
SMTGTRFLLVDEPLNLSVWGPEGDLVISSDGKTLTVNDVSLFTKLIESMDVKMDRVKG
DITYKVSNTTITSKMKLDMETSFIFVETATNNILLSTDKRISIIAKSHVSVKVKNY
IPNIEKYFTFLIVAISVMFNNVKQSSDFTKVETVYWSRICQNTKTKNRKPVIVQSLDA
NMAKVSNNFFKSETREVFVNGNGVMFSCMDPDGRYNSVGFLSIFHRLQRICIPCCFLR
SQAHTDTFKSCVYDEEVDRSALNPYILNFGKVVTESKLSFLPIIFDKYFNEGLEADFE

ADNKRLRATAGYYVVHCCEGAIVRLRTVSEIVSYVNASGNVLISGDMVYFPMRLAETA
ATRILIQEIVHDVVIRKDAATDAIHLDQDASGRSLASMFPHKAARRVREENGSLTT
SGFFVDGKRFAPKLTSRFTAFVRNATVPNAVSRHFALFRHVVTADAPDRFMKTWSVNC
ALKLGVEPDSARAPALLQEFPYQP"

[CDS](#)

87765..88676
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/protein_id="ABA00601.1"
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RSKDEERKLSLGFFLQRLDFTLSREVNQFRSLDALRTENVMKNNVLVAPYILIATL
AGRGFRMTETMVELYFPELYRETSKRFRFCAQIKVIQDFLGFAHDSYHTYDFETYFAF
VALVLRGADSAAEAFDVRAESGLVRSLTEITYRLYVMQLRSDAAQWSVSTGAVVSQAV
NTVLSVVGDLAARAEERLTPVCDLARENPLSLEDLRKYGPRLRSLLTTMARARSFKT
NRRDKDALSRFCRLTAGPSPSACRASP"

[CDS](#)

complement(88645..88926)
/note="ORFV085"
/codon_start=1
/product="virion membrane protein"
/protein_id="ABA00602.1"
/translation="MRPCYVTVIKSIGGLALFQVANGAIDLMRHLFMHFCEHRLRSNT
FAAVFVKTVISMIMYLLLGVALIYMFSDPECSGGERAPTPMATRGTQTG"

[CDS](#)

complement(88941..91658)
/note="ORFV086"
/codon_start=1
/product="virion core protein P4a precursor"
/protein_id="ABA00603.1"
/translation="MTAPNVHMAHHVEGAEYMFQLVSTVLPTLCSDFKPSYDVNRTY
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FPSLSFDNTYLLNLIYPNIAGPAEIGFRARLVDGTMRLARDLLMLLNVRALLTDASRAR
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LRMARGSVASLAVSIFYQSQLARLAQLHPSVTLMDLSLEVLTTSGLTRVASPGMQFVD
ISANIRYYVTLLSMLMRADRASPLIAPGKSLFWDGIAYTEFKSMSTADSLFMSSVCYT
FALFDHDNVTYCSLLSDALAAGKEPLRVCFYPRVMGQKTVGALVMETLSGINAMTPRE
FPRRSTQPNHHIGLSQRAFMQFFQMLRLVCNSDPETAMKEVLMAYAGLRMEDKGAPHY
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EEVEKIMASAHDLLQFMVTATNVRDAQGYRGPSAQCRFPSPSPASWRFPRIIYGAK
DAAETADQSVVLCSQDMGMLDRINVRGIFSASTVDELMSVDGFMPEPTAFKRNLSMI
DEGLSSEGILMSMPCNLLDRLVTVGGSPTITISGLLDEVSGSSDSSVSSNEIADAI
NAALKTRYVRDTSNVNSALSISARSEKQLDAVKRATCCISALFKQLTQSVYTTERI
FGVPIADEVKNSILERYNLFVQLSKSLYMDMIALENLKALLLIVRRSGRYVGDAEIGV
AEMQKAYELVREKISRLTAYYSSIGEMYWNNMKRNLNLRSDGAVSFDSE"

[CDS](#)

91673..92683

/note="ORFV087"
/codon_start=1
/product="virion formation"
/protein_id="ABA00604.1"
/translation="MTAVPVTDIPGDYGPTSFSEDNYPLNKHVELTKGQLSILRTVND
KLLARTVQHSDGESDESESEEDDISSPLPPDEEPPDSCVARVMPRDADLAAPKKADGY
IIAAEQQRQRINILVSDREAVVEREPVQTSFARVSAIPIHGDGARRTTASFSTTPS
LGAVFDDAKRVRLLLEEVKELRRKCATSQDNGNLENFTKVLFGKAPRASELNKRVVIV
NYATLNNVTLSMEDLEKCSDEEVDVMYSVIRRYNETRKKILVTNVVIGITVLEHVL
VKLGFSEVRGLSADLSSELIDVEIGEDCEHIAERLGFNGSPVLNVALFVVKLFVRKLN
LI"

CDS

complement(92684..93472)
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/protein_id="ABA00605.1"
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AAADVDCVGGAGALEASSSTRGSASSSSSRKRTTGTRSTGSRSTGSRSSGTRSSGST
RSRRSGAPSRNNDGGCGMNAFDSDETTIQAVSNCGKIVYGVVKNGLDVQGTVGEV
CEDLLGIDSVNGGRKKSSSGRSGTGTSRRSGTGTSRSGTSGTSRRSTSGTSSSAS
SSRRRASSSNTPCSTTSSASTASTGARRRASNLNMAMDLDGGMC"

CDS

complement(93489..93767)
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/codon_start=1
/product="virion membrane protein"
/protein_id="ABA00606.1"
/translation="MGLLDALLTVIVISIVCYIVIMMYRRSCVSAPAVPRNKDLLPPG
ASSFEDKMTDDQVRAFHALVTSSPGDNPAPAPTAESPVARNRFSAASS"

CDS

complement(93791..94066)
/note="ORFV090"
/codon_start=1
/product="IMV membrane protein"
/protein_id="ABA00607.1"
/translation="MDIFETLSSYYSGVLICGVLLLLTAACVFAFVDFSKNTNNVTDYV
WRALCVTCFIVGAVLLLGLFVFSMYRKCSGSPYARLNNTDIELTAR"

CDS

complement(94083..94244)
/note="ORFV091"
/codon_start=1
/product="putative virulence factor, IMV"
/protein_id="ABA00608.1"
/translation="MVSDYDPAVLVFIFCMALAANFCMPMKTCLSTIFVLQSVVFSWF
LFHFVHSVI"

CDS

complement(94245..94514)
/note="ORFV092"

/codon_start=1
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 /protein_id="[ABA00609.1](#)"
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 RTARALLLVNPTAGQLAAVAAGAPAGVRVLVLVDVARRDMPFSVV"
 complement(94501..95577)
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 /protein_id="[ABA00610.1](#)"
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 IAKPYLRQGTMCFAFEIGASAPPTDAAMARCCTNPEPGCPSVVFANGYKTAHCDGVMASR
 CAVEPDAPECMAWLRTGRYAALDTYAALCAKHMDARFCSEFVRVARPASFAFGDSALR
 RYCDAHRAAPECACVAGTTLGKYLGPRVCRAHECTDQSRDRKWLFFSQDEQSRSCRYV
 GCRIDVDSLVMQNSRAHMIADCGKAVGAGYADPDGVRDNASANLPAVPPFLVAALAA
 GVIFYFVAVYSRRSVETKTINVS"
 complement(95603..96193)
 /note="ORFV094"
 /codon_start=1
 /product="phosphorylated IMV membrane protein"
 /protein_id="[ABA00611.1](#)"
 /translation="MESYFSYYNDEFTAGGVQDAELFSPEEQNAFLPKDPGTADSPLV
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 IYAFRLTGRGIVRTRSAAPACPVYAGAKSEDLFFAE"
 complement(96208..97674)
 /note="ORFV095"
 /codon_start=1
 /product="DNA helicase"
 /protein_id="[ABA00612.1](#)"
 /translation="MFGGVQVDDKLYAYLKKLAGRGRPLCLFRDNGEFVEVFAGSAFR
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 PFAVSCDGAASLLRSGELDRAMVAIVSRHFANDDFCRAVSRQFDVLVLDESHTYNLM
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 TTPKIRTLESLGEPQNKYHVFTEKILGEDVHRNKLIVDTVVAAMAAGEARRVLVLTK
 LREHMGVLHAALCERLGAETVFLGDAKNRKTPEVTRALRDKDRFVLVSTVFFSGTGLD
 LPNLDALAVAAVNLNRMVMEQMIGRVCRESHANTRTLFVFPDSSVRAIRDTVSAFAQR
 LVLAVDGLGFVRERAAAGAKNEPALYSAISGRDLAAV"
 complement(97646..97921)
 /note="ORFV096"
 /codon_start=1
 /product="Zn-finger protein"

CDS

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/protein_id="ABA00613.1"  
/translation="MSAVKAKAGAKGGSKGGVVDVAAGNKKRRRRRVTTVVDDSSDPV  
CSSCNSRLVSIKDVDRSLSTLSLGLACSSLSCAACGSALTPLRDLAR"
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complement(97932..98258)
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/note="ORFV098"
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/codon_start=1
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/product="hypothetical protein"
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/protein_id="ABA00615.1"
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/translation="MISLFLLCIFYFLIFNILVPRIFDKLRQEGAAFDRLAGSGNVYR  
CVGDVVVSIALGATGISARVMADEKGAPLPCARIAEADAARFTRCGARADLRDVCANA  
YADVFL"
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CDS

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98257..99546
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/note="ORFV097"
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/codon_start=1
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/product="DNA polymerase processivity factor"
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/protein_id="ABA00614.1"
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/translation="MTSESDLYTLKELIRLRDSLHLATGAAVERYNALVEWAARTYWT  
VAVLPSAPCASIEKYVCVKPDCALEPGEYSVSRHLHFGLTHAWVRGAAFNSASGAEE  
PPEEVRRACEALDAADFDTFVRFVFGREWTVDVAVDHSSRDEVLAACAASGVRVA  
RTLVRVRVAGESFARADFDVHAALRAEGDVARGTAVCLALRGSSRRWIADRAPRCFM  
RVRRVELEPVDARHHCPVLISARGDRVLCRGVGHLDARAREGVFVAVRRYPECLVLC  
DEAAAGAAECSREEALRLLVRRFGRDFAVSEEGYVFRVQMDLRGVSARLGLAPCASL  
EELRRAVERDRALMRRLRAEGAVRLACECVGYPRQNAVELINNMRFQITEEGAVANFE  
LANASCLGNPTAESIFASFAQFVPVFNVLSAIARAQP"
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CDS

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99543..99983
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/note="ORFV099"
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/codon_start=1
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/product="resolvase"
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/protein_id="ABA00616.1"
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RDVTAFFPANVVLVERQCKMSPFSKFIYFIRGLLYDGRRRTRVLAVPPAMTGSTYRQRK  
RRSVRTFLALAESFGILDAVPARKKLDDVADSFNMAINVVLRTN"
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CDS

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100007..101149
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/note="ORFV100"
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/codon_start=1
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/product="intermediate transcription factor VITF3"
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/protein_id="ABA00617.1"
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/translation="MLALFEFLRSVEDCYRRTIFNFHIAHSAEAGDVYGVLRDRILAA  
TRFEEVAPPGLADALAKVVYCDISTTKHLVNHAFAARARPARRGSLAQFFDVHVGE  
DAESRRTAEIFDRERSLSVYKTTAKRCKIDYGEIKRTIHGGRQTYFSGRRSDDFLS  
TTVRADPSKPWIKSISKQLRVDILHHAICTRGKSSILQTIEIVLTNRCTCVKIFKDSTM  
HIILSKDDRERGLADLADKLFGTYATTFRVIAAITGNACFAAVADAAARVVALPDADA  
KLA AVRGLAECYGVNFKIGMFNLFTGAIEHTVFPSLIPAESKIKFFKGKKNIVAV  
RSTEEGRECEQAQALLAAMRERSARLAAADVATASVDLFLKELLGP"
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CDS

101174..104659
/note="ORFV101"
/codon_start=1
/product="RNA polymerase RPO132"
/protein_id="ABA00618.1"
/translation="MEQALGYKFLLPDPKDDVYRPLHFQYESYANFIKHRLKDILTV
RRTLLTFKNGTESIVLEIDDVKISAPEFSPIVASIKGHSYEALVTFTVNIYRHVMTKD
GLTVTKINSYEGTDSHLVKLPLLLIGYGNKNALDPSKFVVPNAIGGVFINKQSIEKLG
NMIEKITTWPKFRAVKANSFTLSFSSISPVHVMPARYRHYKILLDVNQPDNFVISSAK
TFITVNVIVMVQFLADVTFLEFVARNLCFDMPPEAAHLATALVESAKTVPAGADVAEYV
NALIAAEHAKQKSTLSKEEFYEMLSNFLPHMQDSANQLKGLYLLSLVRKMVFCVFFP
NRYPDRDSLVCVRVYTYGRYFEALAMDELETYIGNIRNDILANHKNRGTCTVNIHVLT
TPGFNHAFAALLSGKFRKSDGSFRTHPHYSWMQSSISIPRSVGFYPEQVKISKMFKVRM
YHPSQYGGFCASDVPERGPQVGLISQLSVLASISNIRTADFVELTKRVCDYVRSYPAR
DISYFETGFAVTVENALVASLNPAIVDAFVLDLRRRKRLGFFGNREIGVALVRDRMNE
VRINFGAGRLIRPLLVENGVLVMDAEERLERDLAAMTFSDVLRFPVHIEIVDVEQ
FSFSNVCDSVQRFRTLPPPEERALDFCDFAEFRDGYVASSLVGINHNSAPRILGCA
QAKQAISCLSDLRNKVDNGIHLMAERPIVVSKALETSKIADNCFGHVVTIALMSFR
GMNQEDGIILKRQFAERGGLDILTCKKYQVEIPLNFNNRERVSAAYSKIDVNGVVR
LNAFLEQGDARIARNVSSRTLDDDFVADNQISFDIAERYSDIYAARVERVQADLTDKVK
VRALTVRERRAILGDKFTTRTSQKGTVAIVADETELPHYDENGIAPDVIINSTSIFSRK
TSLMLMEVILTTAYGHKPFAEDGSNRPICFPSTNETDFETYIEFARRCYALSHPEAAA
DDPEFEHRVFCERVLFDPETDEPFAARVFFGPLYLRLRHLTLDKATVRCRGRKTKLI
RQANEGRRRGGGIKIGEMERDCMISHGAAFTVAEILRDSEEDAQEVLCENCGDIAAR
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RFSLAPDESLEFSPED"

CDS

complement(104798..106360)
/note="ORFV102"
/codon_start=1
/product="A-type inclusion protein/fusion peptide hybrid"
/protein_id="ABA00619.1"
/translation="MESDNALVARFKSLVERHWHQSLSSVSCIPREDRKLIRDIIRRY
IQLAPAIIDGANVAGRPVNLYFRRYVERNPMYRKIFVDDEWLSKNAITLGEHVKINVIH
ISTLGKLYLMIVKKIMTGHVTVTNEPIMDMYDVHERSPSQVIDRKTAFFCQDFLNAME
TLAHWYSNPAIYFGVPMYWWYGVDAKSIYRILETGWTYNGKIHEETRNSLAFLQFMSE
VNGNDVRDKDHVKVFEKLHRRFRVMSVPEFIMDGLCFTAWDTFSKVGTSFTMDIFIR
PSEHDGAVYKSVDHDEQGDLEQLTRPNTIDCSAVRISYYPDVIHVSNDENDLKKPGAY
DLYYYYEHGDPNNISRNYYERRDRLTYDGRCSSEKLRVWTDPDPDGTTYLRMLWDRYDGN
IKVTPFKVGFDSACVLPERVVKLLSPLEKTLAEAKTCCESNRMAGKHLEHHIETMRQ
YAVLVSNKTDVHTCRRPGAEVTRHALDGSLLPAHVGRDVGARSYCSARRSQPRVSHGE
KPWWWGQHAAIW"

CDS

complement(106403..107953)
/note="ORFV103"
/codon_start=1

/product="A-type inclusion protein"
/protein_id="ABA00620.1"
/translation="MEKLVSDFTTFINANWTKPLNNRSCIPRRTRKVVVDLLREYIKQ
APPIQGDNPGLPVNLFLKSYVDRNPVYKSI FENNIWLLESAQNIRTFDNITTVGRFL
LMVVYRIMSGSIGEGNTIMDSYSQQTSKPVLNIQMDYFCYNFMWHIASVANYKKNKSL
VIGLPMYWWRDDQNQQFVLEQLKNDFPDVSMPDARGAIDFVQYMTDVYDKKYEAQPRV
NISFDKFDTNFVVSVEFIMDGLCYTSWDKITKYGTAFNVDIFLTNIYRGVNFKTVE
HHKEGVVDGITRSDDDVDCSALRLVYHPGFGRRISSPQFSRQVPRSMEDTYSRQHDVN
NKTPIIFTRNHENSGYYLDYQHYSTIEEVGNNERERRDRLTNGCVNHRFLGDI DNDK
STYRRMLRDRFMGYLDTKQEVPPKVGETGNDTPQCMDIDRLNDLIKPLEDLAKTNTCC
ASKITGNGETTVVGSTTSSTPVVREVD RWWGRHHNTSWLTRPLSRHYPYRPLDSTWW
RGRSGAIW"

[CDS](#)

complement(107993..108262)
/note="ORFV104"
/codon_start=1
/product="viral fusion peptide"
/protein_id="ABA00621.1"
/translation="MDENDGENLLTQPDDTGNSTNGVYAAGAPTKE SVEERLVSL LDS
YKTITDCCRETGNRLDRLERHLESLRKALLDLNRKIDVQTGYSRY"

[CDS](#)

complement(108303..108725)
/note="ORFV105"
/codon_start=1
/product="IMV surface protein"
/protein_id="ABA00622.1"
/translation="MDAVSALCVALAAAAAMFVALQLWAVYENYDNIREFN AANAAL E
FARTAGGPRVD RRVFDPNDEAFDVRKKWRCVLFKGA AVAASEFGFRSHDGVSPGRFAS
VEACADEIFTAASDFRVFNPCLPNQGSEACLFLKSIL"

[CDS](#)

complement(108741..109685)
/note="ORFV106"
/codon_start=1
/product="RNA polymerase subunit RPO35"
/protein_id="ABA00623.1"
/translation="MADAPLVGEAALAVDLDPAVASLIKHEFAFHLQWPALTQGVVLE
NTTTCVNEEWLSAIEAMP SRHVFH AHVEDVLERRAGLCVFLKFVQSAAGQHVSLHDLD
YFLVRGDALEAVEKPPQLREMLLHTFHD FRPKSEQKIELIAFGAGVEVSDKLVDALAA
LLDTEAFRREHENVKVHPREFRGYAPYTAIAPRGRLTLFATTYAWLDNRRQLRDFLA
VLERKVL EDVA AHAVVDVPPDPREPRSVYCTASGVLYVNDIVTACVARFFGCRARLD
SYHRFDMLRADTEELLRALKA AFARLRAAELRELRANE"

[CDS](#)

complement(109685..109867)
/note="ORFV107"
/codon_start=1
/product="virion morphogenesis"
/protein_id="ABA00624.1"
/translation="MEEDLNEALLHMLTRIAQMC GGDAAAAAAAIKMLMDLVNERIM

[CDS](#) ILNKKAKKEMGQASSA"
 complement(109868..110017)
 /note="ORFV107.5"
 /codon_start=1
 /product="hypothetical protein"
 /protein_id="ABA00625.1"
 /translation="MVLAPSELLVALAECVLTQCAGALLAFAVRTTLPREASPRDDA
 RPHGL"

[CDS](#) complement(110036..110836)
 /note="ORFV108"
 /codon_start=1
 /product="ATPase, DNA packaging"
 /protein_id="ABA00626.1"
 /translation="MDVVQEVRFKRESLIEAPFRMALVGGSGSGKTAYLLSLFRTLVR
 RFKHILLFTPVYNAAYDGFVWPDHIHKVTTHEELEYNLSVAKRKIERHAQTKKQKFLI
 ILDDMGDTQTRSPTLLGLMNYGRHINVSLLVCQTYKHIPVNGRASITHLCCCNVSDS
 DVENVLRSMSIRGSKRLIRAMAIMRSAGTRRVLIIEDSVFCQNQERICYDFADES
 VV
 KRCLDPGILLAQFSHMKTRLADIVDAETKGDCKDGGDKGDDADSDGGN"

[CDS](#) 110921..111406
 /note="ORFV109"
 /codon_start=1
 /product="EEV glycoprotein"
 /protein_id="ABA00627.1"
 /translation="MAHNTFENDSESAANNQYVASVKRQKMIRRYIKMFFRFVTAIAI
 IVLAILVVILSLSLDECLHREHPHDYSHVQNSTCDGITLGGEKCLRLNLPATWEDANR
 QCGNLGFYLPSTGLEKKFPWLVTYLDGTWGNQTQNSVFGPTGDLQNVIGPKEYKYFCVS
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[CDS](#) 111425..111922
 /note="ORFV110"
 /codon_start=1
 /product="EEV glycoprotein"
 /protein_id="ABA00628.1"
 /translation="MGCKKVPNRQSIRTLKKASCPVASLVLTILSLVTSLSGAIVRYTNF
 FLKEACDEGWMPKINICILNTHFEATNDDAHRICENLDGKPPAIPNPNTLLKGVTVLTG
 EKKFWMTHHEDYTTVFEHIDRTPKNTDYDSKKHTCLMSDGLIHHNCMMNVTVVCM
 KEMHG"

[CDS](#) 111955..112494
 /note="ORFV111"
 /codon_start=1
 /product="hypothetical protein"
 /protein_id="ABA00629.1"
 /translation="MSRLQILTSFGQIFAPDEARLREIARDLGICTIKRAFGDMLYGF
 IDFDPVPLTQVNMLMSNCYFAVNGNLLPCTEDFRLRLPATEISAAYLTRTGRTILCGK
 DFNIVAPSGFKPSMRLRDLSHVSALVEILEVYDESGEYQFVLGPSAQFMLRLMEKENV

[CDS](#)

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CLFGSGWCIVDLRKLDVPI"  
112599..113459  
/note="ORFV112"  
/codon_start=1  
/product="chemokine binding protein"  
/protein_id="ABA00630.1"  
/translation="MKAVLLLALLGAFTNAAPLLESQRSNSEEKANFCSTHNDEVYAR  
FRLQMRVGVRRHSPLYTPSNMCLDIEDSVEDIEESTEKEYASTATGEAAGVNVSV  
GEGVSIPFSYIGLGFNPSLEDSYLYNVVSSRAPWVKQTSDLANGGWGIQVLEKELL  
AIQIGCDNQKFPEEPTTTPSPVTTTSLSTPDLNEENTENTPTTTGASVDRKRN  
PADIDFSLLVDPRCVTSVDLHVELRDACIDYKQESPLSLKGKYGDGELVKKEIKDVGKNNH  
MCSLNLNPGN"
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[CDS](#)

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113532..114161  
/note="ORFV113"  
/codon_start=1  
/product="hypothetical protein"  
/protein_id="ABA00631.1"  
/translation="MEVLVIISIIVAVICLTGAVMYLLIELGLAAERANKRARVKKNM  
RKLATQLGNGSVDSGIGIGPCIMSRTMDSGPSRWDSDEDDGDSLSTSTSGGGTLTR  
VWVGSAGPMYENFCGNGTRHSPTNDPGYHSRETLCSGP RPQAPALPTPKPDEVTV  
DVGPGPDQHGPIYEEPDPIPPQEPEPPVQIEVTINGPGGEGEAEGEFFFYDE"
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[CDS](#)

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114205..115245  
/note="ORFV114"  
/codon_start=1  
/product="hypothetical protein"  
/protein_id="ABA00632.1"  
/translation="MPLFRKLMVSRSLVKECLTLDFRQGERLPTRCFLPVPAGTTFHR  
VCDTSPLTDEVSRHVQEFPVMGTGRVQYYFESGQGMIGDNAGMARMLVCTR  
SAYNGGDVVVRSTRSRADKTVVAPCQGMALLSPFCAFDITPVESGSAIFA  
EVIVTAPSM DYVEAVTGTGEAAVRIFNSHHPLWPRHGSNVC  
FALRLLRDVRTGERVVEQMFMDGRWHTVLRTSCGNKVCVPADLVGQTN  
LEEVPFCDVTPEIMRRALAI  
DPYEA  
VAHPHRCVYGAMDVRCANEYL  
VYCTFKTEPTRSTSSPGPD  
SPLSPATPSTSRAAAARVPTTPQE  
VASPTTRLLETCLRDALDGL"
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[CDS](#)

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115359..115796  
/note="ORFV115"  
/codon_start=1  
/product="hypothetical protein"  
/protein_id="ABA00633.1"  
/translation="MACFIELLD  
SIFNRRHRNFGPEDMYRPSDAP  
PPKSHTPRTPTPRTQCPGHP  
RRQSSSPIYGAYVDSLPRN  
RKRFQNHSCPGDYERCQLSD  
TISL  
DATLLT  
VTVT  
SIS  
SIS  
SSSSSDSISLGQCRLSMVSATSTSTSTTFSSSE"
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[CDS](#)

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115865..116560  
/note="ORFV116"  
/codon_start=1
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/product="hypothetical protein"
 /protein_id="[ABA00634.1](#)"
 /translation="MSSSSSETTPKPKPIAPPMTQEEFNKEVKKRKEQKKEKSRTVE
 RESETVTVSSDGSEIKKTYERESERTTETETKNNTSTDDNKQNTPEKPEETKPASTPE
 GVKPAETPAPTTDPQPTTQPPAESNPGSQPAPASEPTPAPEPAPEPTQPASVTQPAPT
 PEPSAPKPTPASEPTPASEPTSAPEPTPSAEPTPQPTVETPPSAPAPTPEAQPPANS
 NPTTETTTGTSTS"
[CDS](#) 116735..117532
 /note="ORFV117"
 /codon_start=1
 /product="GM-CSF/IL-2 inhibition factor"
 /protein_id="[ABA00635.1](#)"
 /translation="MACLRVFLAVLALCGSVHSAQWIGERDFCTAHAQDVFARLQVWM
 RIDRNVTAADNSSACALAIETPPSNFDADVVAAGINVSVAINGGFENMRQVETTY
 NTARRQMYVYMDSWDPWVIDDPQPLFSQEYENETLPYLLEVLRLARLYIRVGCTVPGE
 QPFEVIPGIDYPHTGMEFLQHVLRPNRRFAPAKLHMDLEVDHRCVSAVHVKAFLQDAC
 SARKARTPLYFAGHGCNHPDRPKNPVPRPQHVSSPISRKCSMQTAR"
[CDS](#) 117735..118094
 /note="ORFV118"
 /codon_start=1
 /product="hypothetical protein"
 /protein_id="[ABA00636.1](#)"
 /translation="MAGVRSCQKKVPSTAGSMSFQRGNRSIQPAMSEALQNDFSYNPR
 PPPPSAEEIDFFCVDMRKVLMEIEAKPSSSKYPDFIHPVDSSPPCTPARKRNGFGRKA
 LNKTQVPQQAKRDGYSR"
[CDS](#) 118514..119128
 /note="ORFV119"
 /codon_start=1
 /product="hypothetical protein"
 /protein_id="[ABA00637.1](#)"
 /translation="MDSRRLLAVAFGGVLASMTQRRRLASLIASIGQRLMGDGMRR
 VAVRLIDQLMAGPPDINDEAFQREIRVGELFQALHRVVEQARREKYFEVCGAGNDADA
 PVVEMDTAAAPPQPQPAPLVVTPQNAFMFVPQGSVHVHDESVDPPFFGMSPSIFGRDLP
 PQPPEELLSDYDPLMSQAGEPPSPRSPCEADLWCFETLGDSDSD"
[CDS](#) 119593..120195
 /note="ORFV120"
 /codon_start=1
 /product="hypothetical protein"
 /protein_id="[ABA00638.1](#)"
 /translation="MRLILALVACLLAAPMPLSGRSTSTPNTSPSALGSTSSEPSSD
 AVASSTTTSTLTSTTSTLTMTSVDTTTTSGATTANSTPAASVSSSTPATTEASTAP
 TTPSTPTTVKVTGKEDTKASAYLVLLITFMVMTTLVMVVVVVVVYKQGLCNCCCKF
 PCCKELKDYLDEEESAGLYDALTWSHSDSGLRLVVRADPR"
[CDS](#) 120318..121238

/note="ORFV121"
/codon_start=1
/product="hypothetical protein"
/protein_id="ABA00639.1"
/translation="MAGFLGAFRGVCSDLWQSLRGHGHSSSCPRRRANSMDDRDRR
HRHREIPNSSASLNSDMPQRSAGARRHYDCRPSEKSRHSSDKHHSADRHHSADRHQS
ADRRHRRSRKNYDSHPSRRNRNYERADYQRHPSQTHPDAPAQTSTLKVTSLSSTSCST
LSQHHYETPDHIYDIPEDSRGASAPPRADLALPPLAMPKSKPRRTRPASMNDCLMKHC
GAGRPNLQDDICTLCTDIETQLSALEKSLESELNFYRRYIQDTKTLLATRAANIGSKA
LIYTDDYNGSGDVGEKEHCSEECCKVEEVL"

[CDS](#)

121292..122263
/note="ORFV122"
/codon_start=1
/product="hypothetical protein"
/protein_id="ABA00640.1"
/translation="MANRLVFLDPETLAEADGIPGYGVFEPGKKKCIPTKIRTSVALA
CRYAVSDGGLIDFVMATYGTRRACRLVRHLTIGAEGVMTRPASNCAPHMVLICLRGV
AAVSSSEDMGFGRCIMERGTMFMVKSAAHSAVVCGNPACELLVLFYDYFTPIPRPLSGDE
VLFTRDLAHVDYAPESAVVFKMDYNLETDVATLFGVGGYIFRAKGLMMETREQVGDECD
CCRHSSPVLVMDREKMMSSLRMIPSIVPGQREIWLRERGWAVLETDARGHCEPGVLR
ALAGLRLFAGCLRSVVGRRRLSLFCYGVAPKFGGEFEDAPRPMEIDG"

[CDS](#)

122354..123931
/note="ORFV123"
/codon_start=1
/product="Ankyrin/F-box protein"
/protein_id="ABA00641.1"
/translation="MENNDGNERNNEHPHVREFKEASLYGFLVAAADVTVEDVHRYLQ
FGADVNYRGAYLCTPLHAYLQSGCEKRLDVVDALLDAGADINAKEICGLTPVHLYASY
ADVDFEFMRGLIERGASVCGESSVTGCLYSYLYTHSVDGGARLDVVELLVQAGADVNV
RGEARKTPLHVHCAGFEVDSDIVDLLLRAGADPEALDEHGLTPADVIVKSVGANVETL
RLFLDAGVSVATSRDARGRTPLHHHADSFRASAGIVRELLAAGCDAAAADDLGNTPLH
SLATFCSCRRSVLDQLIAGGADINARNHYGHTCLYYASIYNPSVCSRLIAAGADVTR
TPDGRTPLSGMIMRKHTRAVRAALATRPADAVAASLDVAVQPEPTDATRACVRYVVL
CGGTLSARVRSRHADFVRECESEVVLRRTTVVGLPGTSLLDIVRAAQQPPVLLSPRVH
HVLQKLCVYAEVLDARLREMRHKTNLVDAVSRLVPCALPPEVVRGILVHVPIDSLRH
TLTLGVAQASRFLPSHK"

[CDS](#)

123966..125564
/note="ORFV124"
/codon_start=1
/product="hypothetical protein"
/protein_id="ABA00642.1"
/translation="MDPAGQRLRAPGPWRLNPPTAAALESALLRPAASAGADRCANAH
VDRRNMGVGEGREVPADVEGLMTEIHLRYGMTRVHRNVHFVQFWHGEHVRRRPARHVF
TVWICLSGEVRIYAECQAGHGFVLCRQMAAGYMFVTEPTDSVTVSVPHRLRNSRSPV

WLAAVFATRHFEPPLPPMYAVPGHVVLARSASMLCDCWPSDPRRRNVIFYMRLSGAMV
RVVVPGAEEIEICTSGFRPDHFSINDECVCCEPHVARTAVWTLAEICRGATVVLAPP
LPRDRAAGLLAEIRLASLRWVRVRAVRSGRESVGPFPVWAAVFSAVRLFLDGTVPA
FPACVENGRAAYGMVYPPEEPRMDGLCVFPTPAEPAALFVRGDQVLEAGAAAAIIAA
AEKRVQAANGSPAAAEEDIGAAADAAAESVEQDQRVEFDLGPDPSPQEPADADQAD
SDDDTGSETETGDESVGGEDDSDDSSSSYSVMSDDENDSGDEGWGDSSDSGIEDDDGGV
GQAAEEEEEEERDVLGAAAQMLGD"

[CDS](#)

125657..126178
/note="ORFV125"
/codon_start=1
/product="hypothetical protein"
/protein_id="[ABA00643.1](#)"
/translation="MANREEIDASAVMAAYLAREYAAAVEEQLTTPRERDALEALRVSG
EEVRSPLLQELSNAGEHRANPENSHIPAALVSALLEAPTSPGRMVTAIELCAQMGRVW
TRGRQIVFEMRLVYVLLDRLPPTADEDLSTWLQAVARVHGTRRRRLHRVLGVGAVMAGV
GMLLLGVRVLRRT"

[CDS](#)

126284..127777
/note="ORFV126"
/codon_start=1
/product="Ankyrin/F-box protein"
/protein_id="[ABA00644.1](#)"
/translation="MADEREADGALFRYLESEDRPDVEHMRLLDEGADVNYAGPRGY
APLHMLMRGNPLDPDAVRLLLAAGADVNATSLCGFTPLHSYMCFGTVPDTRLALMRH
GASVSDLERNINALIEYFNRDGCMGGAETVIALLLVEHGAHVNAKDDLGRTPPHIYLS
GFFVSAPVALALIALGANPNATDAYGRTPLHAFRLSRDVPVAVLKTILIAAGADPLARD
IIRRTALHYHCESFKTRASVIETLVAAGCDPASTDLLDNTALHSMAMGSSCRASLIRP
LLAAGVSVNARNARLQTPLHLAAVFNPPACARLLAAGADPALADLDETTPLLSMVRHN
CARALRTALPLAPDALVAGAVNRVNARTPSAATRECVMALALRGALDLLSAESVATHA
AAIRACEAEVALLRRTRLGAPPTTLFALLTGRPNTLVSAKAARRAMADVCVYRAALAA
RVERVRRKSSLVERLTAMVCPALPPELVTRILALLTVEELACAMRK"

[CDS](#)

127856..128416
/note="ORFV127"
/codon_start=1
/product="interleukin 10"
/protein_id="[ABA00645.1](#)"
/translation="MSKNKILVCFVIIITYTLYTDAYCVEYEESEEDKQCGSSSNFP
ASLPHMLRELRAAFGKVKTFFQMKDQLNSMLLTQSLDDFKGYLGCCALSEMIQFYLE
EVMPQAENHGPDIKEHVNSLGEKLTLRRLRRCHRFLPCENKSKAVEQVKRVFNMLQ
ERGVYKAMSEFDIFINYIESYMTTKM"

[CDS](#)

128582..130084
/note="ORFV128"
/codon_start=1
/product="Ankyrin/F-box protein"
/protein_id="[ABA00646.1](#)"

CDS

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/translation="MDFLGAAALHDYVADAPKVCAEEVRRLLAAGASVEYAGEFGKTAL
HQYMGGRSGADPAVVRALLDAGARVDLPETCCGCTPVHLCMAANIDVEVLRMLVHEGR
VEDCGRAELASVVLKEFVVNRAFDENVTERVMRVLVAAGADVNAASVVDRTPLHVCLT
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