

Table 4. Proteins locating to nucleocapsids and unknown localization

ORF	Identity	Library screen	SDS-PAGE - MALDI	MUDPIT MS/MS	Western blot	Ref.
Identified by using multiple techniques						
9	p78/83			MTNRRYESVQSYLFNRRNNKID AHQFFERVDTAEAQIIKNNIYDN TVVLNRDVLNLIKLANDVFDN KAYMYVDDSEVSRHYNAVVK MKRLVIGVRDPSLRQSLYNTIAY IERLLNIGTVNDSEITMLIADFYD LYSNYNIELPPPQALPRRRPSV VQPAAPAPVPTIVREQTKPEQIIP AAPPPPPSPVPNIPAPPPPPPSMS ELPPAPPMPTEPQPAAPLDDRQQ LLEAIRNEKNRTRLRPVKPKTAP <u>ETSTIVEVPTVLPKETFEKPPSA</u> SPPPPPPPPPPAPPAPPPMVDLSS APPPPPLVDLPSEMLPPPAPSLSN <u>VLSELKSGTVRLKPAQKRPQSEII</u> <u>PKSSTNLIADVLADTINRRRVA</u> MAKSSSEATSNDEGWDDDDNR PNKANTPDVKYVQALFNVTSS QLYTNSDERNTKAHNILNDVE PLLQNKTQTNIDKARLLQDLAS FVALSENPLDSPAIGSEKQPLFET NRNLFYKSIEDLIFKFRYKDAEN HLIFALTYHPKDYKFNELLYV QQLSVNQQRTESSA		1
49	PCNA					2
54	vp1054					3
61	FP25K		<u>MDOFEQLINVSLLKSLIKTQ</u> IDENVSDNIKSMSEKLKRL EYDNLTDSEIYGIHDSRL NNKKIRNYLKKICALLDL NFKHVISSFKNHIVAKL CDATRAKEWQTKSRERRL KNFNLNINYDGPVKIFVAA TAEQKLLKTRDALLPFY KYISICKNGVMVRR <u>DEKSR</u> VFIVKNEQNIYKANKYY AFHSDSVDNFESENDSEKM LQNLI			4
65	DNA polymerase		MKIYPYNELKTRFAEYAKP GEFNITSADTFRIIRL <u>LHYDE</u>	MKIYPYNELKTRFAEYAKPGEF NITSADTFRIIRLHYDEKQGCLFA		

ORF	Identity	Library screen	SDS-PAGE - MALDI	MUDPIT MS/MS	Western blot	Ref.
			<u>K</u> QGCLFAFCNTNIKERVLQ FYFKVKLNLYSYKQCYDK <u>HIFPSCRNK</u> CISYTTFVAPG VEGNYLNKINVIKIERNK <u>A</u> <u>APSDNAACLDK</u> FLHNVR VHMQTPFVEGAYMRFKKT QRCQNNYVGGSTTRMFNL QHFNEDEFELVDEMTLTSGI MPVLSYDIETHSDGHNMS KASVDCIMSIGFVVYKNDE YAKFCFMYHKLPTQIPETY DDDTYVVMFQNEIDMITAF FDMIKITNPDVILDFNGDVF DLPYILGRLNKTMLLK <u>R</u> <u>Y</u> <u>DL</u> PAAAPT <u>TK</u> L <u>F</u> IN <u>KL</u> GNK VDTYFNYIYHIDLYKFFSS DSNQHKVENFQLNTISSYY LGENKIDLPWTEMVKMYN TRRLDVIKYNVQDCMLPI <u>KLFV</u> KL <u>KM</u> ADSVYSQ <u>CIL</u> <u>H</u> <u>R</u> LCTDDVICNISHLISVACF YAAITNTRINESTGKEEPDP YFFNKNDLSIISGQFKADK AAAGISNLKRKLIPLKNIPK DAINLGPANQTVKYKGGK VLKPRAGIYKNAFSLDFNS LYLTIMIAICACLSNLILCED GNVYLNHNSRAIVKLLK LLSERCKFKKNRDNQSESA FLYDLYDQKQNSVKR <u>TAN</u> <u>SIY</u> GYGYGIFYKVLANYITRV GRNQLRLAISLIEGLSNDPE ILEKFNLGSITFKVVYGD STFVLPFNYNEISNETDL KQICHTVETRVNNSFTDGY KMAFENLMKVLILLKKKK YCYLNSENKIVYK <u>GWL</u> <u>V</u> <u>K</u> <u>K</u> DMPVFMRIAFRTAVEQIL RHLDMDKCLQSLQTSFYE YYDEFKSKSLTDYSFSMT YNDNPGKRRKSTDDNEGP SPKRRVITVARHCREILVN KGTDFVPGNGDRIPYLLIDI EGKVTEKAYPLRLFDVPK	FCNTNIKERVLQFYFKVKLNLYS YKQCYDKHIFPSCRNKCISYTTF VAPGVEGNYLNKINVIKIERNK AAPSDNAACLDKFLHNVRVH MQTPFVEGAYMRFKKTQRCQN NYVGGSTTRMFNLQHFNEDEFEL VDEMTLTSGIMPVLSYDIETHS DGHNMSKASVDCIMSIGFVVYK NDEYAKFCFMYHKLPTQIPETY DDDTYVVMFQNEIDMITAFDM IKITNPDVILDFNGDVFDPYILG RLNKTMLLKRYDLPAAPT <u>T</u> <u>K</u> LFINKLGNKVDYTYFNYIYHIDL YKFFSSDSNQHKVENFQLNTISS YYLGENKIDLPWTEMVKMYNT RRLDVIKYNVQDCMLPIKLFV KLKMADSVYSQCILHRLCTDDV ICNISHLISVACFYAAITNTRINES TGKEEPDPYFFNKNDLSIISGQFK ADKAAAGISNLKRKLIPLKNIPK DAINLGPANQTVKYKGGKVLKP RAGIYKNAFSLDFNSLYLTIMIAI CACLSNLILCEDGNVYLNHNSR AIVVKKLLKLLSERCKFKKNRD NQSESAFLYDLYDQKQNSVKRT ANSIYGYGYGIFYKVLANYITRVG RNQLRLAISLIEGLSNDPEILEKF NLGSITFKVVYGDSTFVLPF NYNEISNETDTLKQICHTVETRV NNSFTDGYKMAFENLMKVLILL KKKKYCYLNSENKIVYKGLV KKDMPVFMRIAFRTAVEQILRH LDMDKCLQSLQTSFYEYDEFA KSKSLTDYSFSMTYNDNPGKRR KSTDDNEGPSKRRVITVARHCR EILVNKGTDFVPGNGDRIPYLLI DIEGKVTEKAYPLRLFDVPKMRI SWIKHMGILCTFMNELLEIFGDE QDKIAKCFTAIMQKYMQNQL YDRKEPVLVKINQKCSVKRRR DDDDNDDDDDDCSSDSEN <u>DTQC</u> ANNYK <u>F</u> CLYK <u>M</u> <u>K</u> <u>K</u>		

ORF	Identity	Library screen	SDS-PAGE - MALDI	MUDPIT MS/MS	Western blot	Ref.
			<u>SSK</u> YSALETTKIKEMESIAD QAVKSEM <u>SKLNTQLDELN</u> <u>SLFVK</u> YNRKAQDIFEWKTS MLKRY <u>ETLARTTAASVQP</u> NVE ‡ SKLNTQLDELNSLFVK sequence obtained by MS/MS			
67	lef3				X	
70	hcf-1	1		MDSLANLCLKTLPYKFEPKFLR TKYCDACRYRFLPKFSDEKFCG QCICNICNPNKNIDCPSSYISKIKP <u>KKENKEIYITSNK</u> FNKTCKNECN QQSNRRCLISYFTNESCKELNCC WFKNCYMCLEYKKNLYNVNL YTIDGHCPFKAVCFSCIKRITC QVCNQPLLKMYKEKQEERLKM QSLYATLNDVDLKDLDIYDVDN YSRKMLCAQCHIFARCFCTNT MQCFCPRQGYKCECICRRSKYF KNNVLCVKSKAACFNKMKIKR VPKWKHSVDYTFKSIYKLINV		
77	vlf-1	1	MNGFNVRNENNFNSWKIKI QSAPRFESVFDLATDRQRC TPDEVKNNLSWSKYMFPK PFAPTTLKSYKSRFIKIVYC SVDDVHLEDMSYSLDKEF DSIENQTLIDPQELCRRML ELRSVTKETLQLTINFYTN MMNLPEYKIPRMVMLPRD KELKNIREKEKNLMLKNVI DTILNFINDKIKMLNSDYV HDRGLIRGAIVFCIMLGTG MRINEARQLSVDDLNVLIK RGKLSHTINLKRKRSRNN TLNNIKMKPLELAREIYSR <u>NPTILQISK</u> NTSTPFKDFRR LLEESGVEMERPRSNMIRH YLSSNLVNSGVPLQKVAKL MNHESASTKHLYLNKYNIG LDETSSEEENNDDDDAQ HNRNSSGSSGESLLYRNE ‡ sequenced by MS/MS			5
89	p39		<u>MALVPVGMAPRQMRVNR</u> CIFASIVSFDACITYKSPCSP	MALVPVGMAPRQMRVNR CIFASIVSFDACITYKSPCSPDAYHDD		6

ORF	Identity	Library screen	SDS-PAGE - MALDI	MUDPIT MS/MS	Western blot	Ref.
			DAYHDDGWFICNNHLIKRF KMSKMVLPIDEDDNQFK MTIARHLVGNKERGIKRLI PSATNYQDVFNLSMMQA EQLIFHLYNNENAVNTICD NLKYTEGFTSNTQRVIHVS YATTKSILDTTNPNTFCSR SRDELRFDDVTNARALRGG AGDQLFNNYSGFLQNLIRR AVAPEYLQIDTEELRFRNC ATCIIDETGLVASVPDGP YNPIRSSDIMRSQPNRLQIR NVLKFEGDTRELDRTL EGYPTVPLFLGYQIINSE NLRNDFIPRANPNATLGG GAVAGPAPGVAGEAGGGI AV	GWFICNNHLIKRFKMSKMVLPIDEDDNQFKMTIARHLVGNKERGIKRLIPSATNYQDVFNLSMMQAEQLIFHLYNNENAVNTICDKYTEGFTSNTQRVIHVSVYATTKSILDTTNPNTFCSRVSRRDELRFDDVTNARALRGGAGDQLFNNYSGFLQNLIRRAVAPEYLQIDTEELRFRNCATCIIDETGLVASVPDGPPEL YNPIRSSDIMRSQPNRLQIRNVLKFEGDTRELDRTLSEGYEPTYPVPLFLGYQIINSENNFLRNDFIPRANPNATLGGGAVAGPAPGVAGEAGGGIAV		
95	helicase			MIDNILQFFLKNVPQDKTYEINN LQDANHLIIRNTRTGTRRLF NNFQQLNTIRNNFNPGCAKHD MGASCEDTEEPAEKHAAQTL HDWVLESNDFCIVKPFILK DIIQKYNFEDFFKSTDPGY VQAGDYYPWPWPKKQAF GWQLFLNIKFGVIEPTIPI LGPVDLFDVDPKCFNLVEL NHDPPQTLFVNGKTKFDD LFIKLMADGTVATCKVNGE LVDKNNFYIRDDINLEEC KHIVNVNLSLRFVFNNDK DVDLSDRSRKPRIVPIIS ADYIQTQINLGLIAIHEN MVKVLAATHERANDPNLLQ QYFEKSKFKNFDFLIYV LWKILTKNENFSYRETD IKLFLELLCESLFACDKE ALNEALKRCEPYKKQEKI VFNACNHWDFDDTKLCV SLGYFGIHYMIYLTQSA KNEILDHDELWAYTYENV MALNLPDIVCKGFFRKL ENVVTGVNLFVNGKHYQ IVKKEDDLFLTKSNKYK LSNIKFNWVYLYLTTHG VYNVFTNSFHSSCPFL LGTLPQTFKKPTDEKYL PEAFNYMLSTSADELSI RTYHIA	X	

ORF	Identity	Library screen	SDS-PAGE - MALDI	MUDPIT MS/MS	Western blot	Ref.
				KMCRDVKMLKTNTAIVNYMGN CNTCQADMRVALNNLFRDLWN LDDENLITLALYVNKNRVSMDL HNLKCKPCRSTVSGSRPKCKCY KIKINRKALKVCLMADMFGND AELSELIWMLIFTNKTYVSTTLIR TNSEFVNQHGEFFSKEHNKIIQY LYRTIHKIEYVDMLMDKFNDKR LFLTEL RDDVAREPDVQFEESDN ISKFYTHHADALMILKKYNVW WDKILARSTDDLPTWLTRFYM RIIMSKVDLKEYSYNYLKKIVEG YLYFKRFTNFNHANAIMLMHFA ASLAIPVDYGKKAIYMPGEPGSG KSSFFELLDYLVLMHKFDDDNH SGESNKETSDKEVSKLNSQLYTI NELKQCSESYFKKHADSSKSDS KSRKYQGLLKYEANYKMLIVN NKPLYVDDYDDGVQDRFLIVYT NHKFVDSVKFAGSVYEHKSKQ FPIESMYYESLVTPVRLFLSHVL MYRRDPKTGFVVYKTLLSNDP MHKHNLMCLSTNNSPLYALIYIL NIKTVRSATTIGEDKMEEMIGIA VQHFKNFLHPSFVQYNYKKNIN ASSSKSFVNEQVLLQKIKNFKF NNYNKTTNVFYNMTMALNRND LNTSVPNFVC		
100	p6.9		<u>MVYRRRRR</u> <u>SS</u> <u>TG</u> <u>TY</u> <u>GSTR</u> <u>RRR</u> <u>SS</u> <u>G</u> <u>Y</u> <u>RR</u> <u>R</u> <u>P</u> <u>G</u> <u>R</u> <u>P</u> <u>R</u> <u>T</u> <u>Y</u> <u>R</u> <u>R</u> <u>S</u> <u>R</u> <u>S</u> <u>R</u> <u>S</u> <u>T</u> <u>G</u> <u>R</u> <u>R</u> <u>S</u> <u>Y</u> <u>R</u> <u>T</u> <u>R</u> <u>Y</u> <u>Y</u>	MVYRRRRR <u>SS</u> <u>TG</u> <u>TY</u> <u>GSTR</u> <u>RRR</u> SSGYRRRPGRPRTYRRSRSRSS GRRSYRTRY		7
101	BV/ODV-C42			MSAIALYLEINKLRLKIDEPMQL AIWPQLFPLLCDEHQSVQLNTD VLINFMMHVARKSQNTILNNA AIASQYAAGNADVVAAPASAQP TPRPVINLFARANAAPAQPSEE LINMRRYRNAARKLIHHYSLNS TSSTEYKISDVVMTMIFLLRSEK YHSLFKLLETTFDDYTCRPQMT QVQTDLLDAVRSLEMPSTTID LTTVDIMRSSFARCFNSPIMRYA KIVLLQNVALQRDKR <u>TLEELLI</u> <u>ER</u> GEEKIQLQPQQYINSGTEIPF CDDAEFLNRLKHIDPYPLSRM		8

ORF	Identity	Library screen	SDS-PAGE - MALDI	MUDPIT MS/MS	Western blot	Ref.
				YYNAANTMFYTTMENYAVSNC KFNIEDYNNIFKVMENIRKHSNK NSNDQDELNIYLGVSNAKRK KY		
102	13.1 kDa		MIASINDTMDTDDNMSQ ARRNRRNRPPARPSAQTQ MAAVDMLQOTINTAASQTA <u>ASLLINDITPNKTESLKILST</u> QSVGARSLLPEMQANASTI KLNRIETVNVLDFLGSVYD NTIQVIVTE ‡ sequence obtained by MS/MS	MIASINDTMDTDDNMSQARRN RRNRPPARPSAQTQMAAVDML <u>QOTINTAASQTAASLLINDITPNKT</u> <u>ESLKILSTQSVGARSLLPEMQAN</u> ASTIKLNRIETVNVLDFLGSVYD NTIQVIVTE		
104	p87		MNDSNSLLITRLAAQILSRN <u>MQTVDVIVDDKTL</u> SLEEKI DTLTSMVLAVNSPPQSPPR VTSSDLAASIKNNSKMVG <u>NDFEMRYNVLRMAVVFVK</u> HYPKYNETTAGLVAEIES NLLQYQNYVNQGNQYQNE GYDSSLNKAEECYVKIDRL <u>FKESIKKIMDDTAFEREQE</u> <u>AERLRAEQTAANALLERR</u> <u>AQTSADDVVNRADANIPT</u> <u>AFSDPLPGPAPRYMYESSE</u> <u>SDTYMETARRTAEHYTDQ</u> <u>DKDYNAAYTADEYNSLVK</u> <u>TVLLRLIEKALATLKNRHLI</u> <u>TTIDQLKFRDYLSNDADA</u> GEFQIFLNQEDCVILKNLSN LASKFFNVRCVADTLEVM LEALRNRIELVQPESDAVR <u>RIVIKMQEIKDSSTPLYNI</u> <u>AMYKSDYDAIKNKNIKTLF</u> <u>DLYNDR</u> LPINFLDTSATSPV RKTSGKRS <u>AEDDLLPTR</u> SS KRANRPEINVISSEDEQEDD DVEDVDYEKESKRRKLED <u>EDFLKLKALEFSKDIVNEK</u> <u>LQKIIVTDGMKRLYEYCN</u> <u>CKNSLETLP</u> SAANYGSLK <u>RLNLYNLDHIEMNVNFYEL</u> LFPLTYLNDNDSKTL QLVNYIFLASNYFQCAKN	MNDSNSLLITRLAAQILSRNMQT VDVIVDDKTLSEEKIDTLTSMV LAVNSPPQSPPRVTSSDLAASIIK NNSKMVGNDFEMRYNVLRMA VVFVKHYPKYNETTAGLVAEI ESNLLQYQNYVNQGNQYQNEGY DSSLNKAEECYVKIDRLFESIK KIMDDTAFEREQEERLRAEQT AANALLERRAQTADDVVNRA DANIPTAFSDPLPGPAPRYMYES SESPTYMETARRTAEHYTDQDK DYNAAYTADEYNSLVKTVLLRL IEKALATLKNRHLITIDQLKFF RDYLSNDADAGEFQIFLNQEDC VILKNLSNLASKFFNVRCVADTL EVMLEALRNRIELVQPESDAVR RIVIKMQEIKDSSTPLYNIAMY KSDYDAIKNKNIKTLFDLYNDR LPINFLDTSATSPVRKTS <u>GKRS</u> A <u>EDDLLPTR</u> SSKRANRPEINVISSE DEQEDDDVEDVDYEKESKRRKL EDEDFLKLKALEFSKDIVNEKLQ KIIVTDGMKRLYEYCNCKNSL ETLPSAANYGSLKRLNLYNLD HIEMNVNFYELLFPLTYLNDND NSDKTLHQVNYIFLASNYFQCN CAKNFNYMRETFNVFGPFQID FMVMFVIKFNFLCDMRNFAKLI DELVPNKQPNMRIHSLVVMRDK IVKLAFSNLQFQTFSSKDKSRNT KHLQRLIMLMNANYNVI		9

ORF	Identity	Library screen	SDS-PAGE - MALDI	MUDPIT MS/MS	Western blot	Ref.
			<u>FNYMRETENVFGPFKQIDF</u> MVMFVIKFNFLCDMRNFA <u>KLIDELVPNKQPNMRIHSV</u> <u>LVMRDKIVKLAFSNLQFQT</u> FSKKD <u>KSRNTKHLQRLIML</u> MNANYNVI			
109	44.8 kDa		MECPFQIQVCISDR <u>FFAFPH</u> <u>NLVEQSDVGNKLIENLIV</u> YVPTDDRLYIDKKQFPKF NSVLVYR <u>HEHDVNIDSRSP</u> <u>KKTASATIVYWNPLVPITEI</u> <u>GAGETR</u> VFSVLLTNNLFYC NTMIVHHENPKCPIEFTYPE TDMQSACSALLKNRNGQS VPPPIKSNLRPIACEIPLSHF KELVESNDFLLCFNLETST MVKILSLKRIFCIFYRKQP ARYVINLPHEEIDNLYNKL NWERTRLMKGDVPSNCA <u>TVNRSSLKYIKQAQSLGIP</u> DYSQTVVDFVKMFQKIIFP YQLVPNVIIKLNNFDQMVS SAPNKAEPYKKIRLFCKND SIAISSGIVPINMP <u>DFSPPN</u> <u>TFDYSDYANRTNINFVTQR</u> <u>VLTDGGFSSGITVTPVKYN</u> YYL ‡ PDFSPNTFDYSDYANR; TNINFVTQR sequences obtained by MS/MS	MECPFQIQVCISDR <u>FFAFPHNLV</u> <u>EQSDVGNKLIENLIVYVPTDDD</u> RLYIDKKQFPKFNVLVYRHEH DVNIDSRSPKKTASATIVYWNPL VPITEIGAGETRVFSVLLTNNLFY CNTMIVHHENPKCPIEFTYPE MQSACSALLKNRNGQSVPPPIKS NLRPIACEIPLSHFELVESNDFL LCFNLETSTMVKILSLKRIFCIFY YRKQPARYVINLPHEEIDNLYNK LNWERTRLMKGDVPSNCA NRSSLKYIKQAQSLGIPDY <u>SOT</u> <u>VVDFVKMFQKIIFPYQLVPNVII</u> <u>KLNNFDQMVSAPNKAEPYKKI</u> RLFCKNDSIAISSGIVPINMP <u>DFES</u> <u>PPNTFDYSDYANRTNINFVTQR</u> LTDGGFSSGITVTPVKYNYLL		
114	49 kDa			MSKYALLQKMIIN <u>ELFLNDNV</u> <u>NYATNK</u> LFKSDQANGELHKLLA MLLNYKKSNEAPNIKFDLKNL SFMLENKDKIDIIQFDDIK <u>NYVQ</u> <u>PAIVNLFESHNR</u> SLNNYSTELST LLEDGNENLVPNITDIDNIKLSH MQLARLLCYTAVVESRNSKPW KAIFNNDTNVLTDSFFNHIMNIL NMIKTNQGLAHNVSVVYHIENI QMNLENKPKRSITETVDKDKF ENKHSDIEVCYVMNNSLHPQDV NSQQTLMCSSFVELNVLFPCLY NDTLPDDQSMVFENLYKFEQTK NKSVSKPSRLGNVMFVNSLIDKP		

ORF	Identity	Library screen	SDS-PAGE - MALDI	MUDPIT MS/MS	Western blot	Ref.
				ITRETIVNIINSYHNACQNLKRSG HRVVGDYRAYERDYKLAALDFI <u>ILMLVTSITHRTLKYNMLNIHEK</u> MFQELKTVVCKHNAAKLYDILI NYDINKEPLNFRYNYEVL		
129	p24					10
132	25.1 kDa		MSDKTPTKKGGSAMTLR ERGVTKPPKSEKLQQYK <u>KAIAAEQTLRRTTADVSSLQ</u> <u>NPGESAVFQELERLENNAV</u> <u>VLENEQKRLYPILDTPLDN</u> FIVAFVNPTYPMAYFVNTD YKLECARIRSDLLYKKNK <u>NEVAINRPKISSFKLQLNNV</u> ILDTIETIYDLQNKVLTITA <u>PVQDQELRKSIIYFNILNSD</u> SWEVPKYMKKLFDEMQL PPVILPLGL	MSDKTPTKKGGSAMTLRERG VTKPPKSEKLQQYKKAIAAEQ <u>TLR</u> TTADVSSLQNPGESAVFQEL ERLENAVVLENEQKRLYPILDT PLDNFIVAFVNPTYPMAYFVNT DYKLECARIRSDLLYKKNKNE VAINRPKISSFKLQLNNVILDTIE TIEYDLQNKVLTITAPVQDQELR KSIYFNILNSDSWEVPKYMKKL FDEMQLPVPVILPLGL		
142	49 kDa		MSGGGNLLTLERDHFKYLF LTSYFDLKDNEHVPSEMA <u>FIRNYLNCTFDLLDDAVLM</u> NYFNYLQSMQLKHLVGST <u>STNIFKFKVQFRFVCDRTT</u> <u>VDILEFDTRMYIKPGTPVY</u> <u>ATNLFNSPRKMMAFLYA</u> <u>EFGKVFNKIFVNINNYGC</u> VLASAGFLFDDAYVDWN GVRMCAAPRLDNNMHPER <u>LYLLGEDMAKHFVDNNILP</u> <u>PHPSNAKTRKINNSMFMLK</u> <u>NEFKGLPLFKSKYTVVNST</u> <u>KIVTRKPNDFNEIDKELNG</u> NCPFIFQRDYIFDAQFPP DLLDLLNEYMTKSSIMKIIT <u>KFVIEENPAMSGEMSREIIL</u> <u>DRYSVDNYRKLKLYIKMEITN</u> <u>QFPVMYDHESSYIFVSKDF</u> <u>LQLKGTMAFYAPKORILS</u> <u>ILAVNRLFGATETIDFHPNL</u> <u>LYYRQSSPPVRLTGDVYVV</u> <u>DKNEKVFLVKHVESNTVP</u> <u>AYLLIRGDYESSDLKSLR</u> <u>DLNPWVQNTLLKLLIPDSV</u> Q	MSGGGNLLTLERDHFKYLF YFDLKDNEHVPSEMAFIRNYL NCTFDLLDDAVLMNYFNLYQS MQLKHLVGSTSTNIFKFKVQFR FVCDRTTVDILEFDTRMYIKPGT <u>PVYATNLFNSPRKMMAFLYAE</u> FGKVFNKIFVNINNYGCVLAG SAGFLFDDAYVDWNGVRMCAA PRLDNNMHPFRLLYLLGEDMAK HFVDNNILPPHPSNAKTRKINNS MFMLKNFYKGLPLFKSKYTVVN <u>STKIVTRKPNDFNEIDKELNG</u> CPFIFQRDYIFDAQFPPDLLDL LNEYMTKSSIMKIITKFVIEENPA MSGEMSREIILDYSDNYRKL YIKMEITNQFPVMYDHESSYIFV <u>SKDFLQLKGTMAFYAPKORIL</u> <u>SILAVNRLFGATETIDFHPNLLV</u> YRQSSPPVRLTGDVYVVDKNEK VFLVKHVSNTVPAYLLIRGDYE SSDLKSLRDLNPWVQNTLLKL LIPDSVQ		

ORF	Identity	Library screen	SDS-PAGE - MALDI	MUDPIT MS/MS	Western blot	Ref.
			‡ ILSILAVNR; TTVDILEFDTR; LYLLGEDMAK; SKYTVVNSTK sequences obtained by MS/MS			
144	ODV-EC27	2		<u>MKRIKCNKVRTVTEIVNSDEKIQ</u> <u>KTYELAEFDLKNLSSLESYETLK</u> IKLALSKYMAMLSTLEMTQPLL EIFRNKADTRQIAAVVFSTLAFIH NRFHPLVTNFTNKMEFVVTETN DTSIPGEPILFTENEGVLLCSVDR PSIVKMLSREFDTEALVNFENDN CNVRIAKTFGASKRKNTRSSDD YESNKQPNYDMDLSDFSITEVE ATQYLTLTLLTVEHAYLHYIYFK NYGVFEYCKSLTDHSLFTNKLR STMSTKTSNLLLSKFKFTIEDFD KINSNSVTSGFNIYNFNK		11
147	IE1				X	
Identified by using one technique						
5	12.4 kDa			<u>MYRTSRINNA</u> <u>PVVASQHDYDRD</u> <u>QIKRELSLRNVHDLCTRS</u> <u>GTS</u> FDCNKFLRSDDMTPVVTTITPKR TADYK <u>KITEYVGDVKT</u> IKPSNRPL VESGPLVREAAKYGECIV		
14	lef 1	2				
22	44 kDa		<u>MYRVLIVFFLVFLYIVYQP</u> <u>FYQAYLHIGHAQDYNDT</u> <u>LDDRMDYIESVMRRRH</u> <u>YV</u> <u>PIEALPAIRFDNLGTL</u> <u>AGD</u> <u>TIK</u> CMSVPLFVSDIDLPMFD CSQICDNPSAAYFFVNETD VFVNGHRLTVGGYCSTN SLPRNCNRETSVILMSLNQ WTCIAEDPRYYAGTDNMT <u>QLAGRQH</u> FDRIMPGQSDR NVLFDRL <u>LLGREVN</u> VTNTFE <u>RRS</u> WDELLEDGTRRFEMR CNARDNNNNLMFVNPLNP LECLPNVCTNVSINVHTSVR PVFETGECDCGDEAVTR <u>VT</u> <u>HIVPGDR</u> TSMCASIIDGLDK <u>STASYRYR</u> VECVNLYTSIL <u>NYSNNK</u> LLCPSDTFDSNTD			

ORF	Identity	Library screen	SDS-PAGE - MALDI	MUDPIT MS/MS	Western blot	Ref.
			AAFAFEVPGSYPLSRNGINE PTYRFYLDTR <u>SRVNYNDVR</u> GQLS			
30	54.6 kDa	1				
39	p43		MDKRANSRKPFLLFYNEDY YCEKPKRYFHTNKVIFEKL DSYATNINRCRELLTDFFD YCLPKYYRRKNKFTLLFRL LEPVIKQAGASALTTVSND QCRWLEINQFSGWEQRDN QYAHKWLIKVVGADMGO QILFIIKQVTKK <u>FKTCNLGF</u> <u>HNYYKLFRRCLSILLFKHK</u> EVFVQCLQVILKAAMPVK KKGVVKSNYAFAVTNALH YYIVDNPHLLCK <u>DINVAIK</u> VRRLLIK <u>HEMLPTEKQIKLS</u> FEKCSKGIEVPLYEKLLLN HMMRINDDNLQWPSLINN KKIMEWVANRCFDESNIKIL HVYIGQYYTSSCRRVKKSF FKYNGWNRQGRFCRTEKF CHLVNLQLNKDGSKKLKR VQRKLINCK			
58	6.8 kDa			MFSSRKRRVAKRAFNAK <u>SKKFP</u> <u>IGEVVSTRKRLKQNTNTPPHYDT</u> SEDEDEDNYNY		
59	8.2 kDa			MYQIPDMLYNEKMPPRAK <u>LFV</u> <u>ETFTKYHKMNGGDEDIAMHKA</u> RKALEEKYVKIDTLQNLGFRAK PPTR		
74	30.5 kDa	1				
79	12.1 kDa	2				
86	PNK/PNL		MLHVSRLLANGGVKNLCD KFKVKIKNYTEHDLMLVNL YESFERDRDHPVVVECRGL ILNSRTYAVVSRSFDRFFNF QELLQNIIGGEDAHHK <u>LFQS</u> <u>KENEFKYEKIDGSLIKIYKY</u> NGEWHASTRGSAFAENLC VSDVTFKRLVLQALQLDEA HNQFQALCNEYLDCASTH MFELTSKHNRIVTVYDEQP TLWYLASRNNETGDYFYC			

ORF	Identity	Library screen	SDS-PAGE - MALDI	MUDPIT MS/MS	Western blot	Ref.
			SNLPFCKYPKCYEFTSVQE CVEHAAQLKNLEEGFVVY DKNNAPLCKIKSDVYVLM HKNQSRANPTKLAQLVIN GEHDDFLALFPHLKSVIKP YVDARNTFTNESTINIMVS GLTLNQQRFNELVQTLPW <u>KCLAYRCRKAQTIDVESEF</u> LKLTEPEKIKMIKNIKFVST KQALNNKLAPTIKLPSSKQ LLVLIGISGSGKSTYAKSLK GYTEINRDDVR <u>VKLFLNGD</u> <u>YTKLNAFYNQSRKCRQTK</u> <u>EEQITKMCIEQFLKAAKCG</u> ANVVVSDTNLNTQSVDM WQKMAATHNYHFLTRLM DVSLETALERNYKRSKDFP LNPETIKKQYKFLKVNNF EYYVPVGDKFPRAVLCDL DGTVALPTNRSFYDFDNRV AQDEARLDVITCVKYLAN CHDAIIVFMSGRSVICEQPT RNWIEKYFDIKSYKLFMRP SDDTCKDYLLKLFNNYI RGKYNVIAVFDDRPCVVR MWQDLKIPTVFVNCRDYL EF			
88	cg30			MEFVKLQCNICFSVAEIKNYFLQ PIDRLTIIPVLELDTCKHQLCSMC <u>IRKIRKRKKVPCPLCRVESLHEN</u> <u>VYSVNRNVVDVIKCSASSVAQW</u> NKINANFDAASLASVLFKSLLD DAEDNNANADDTMLSEAQAILK KLQVDIAEQTLNIKQQLDLDK LQQTSMQEKLDKIKSDYNNM HKSFKELQLKRITTEKALKSLND DYAKLASKNAKLSENKVLSNK NIELIKHKNLLQNEYTTLQSYKC ITNATITNTVINVD		
92	p33			<u>MIPLTPLFSRYKDSYLLYSFRLID</u> LLRASKSTHLTKLLSSQATYLYH FACLMKYKDIQKYEVOQLIEWA INASPDMDLQQFRIEFMDKTTTEL NLRSCQPKSFTYFTTTIWDTMHF		

ORF	Identity	Library screen	SDS-PAGE - MALDI	MUDPIT MS/MS	Western blot	Ref.
				LSLIIDDMVYTRDKSSLDVFMQ QLKTMKVLFYNVFFILQCAMCR DHVMNVKGFIIYHIELIEIALDKE KYGTDITFVDSYQQETAGADVA VVSNNMLMKNLMAYVVSMTFH NHINDYKWIQRNKKPPAHYERM TWGEYKLLNLQ		
114	49 kDa			MSKYALLQKMIINELLEFLNDNV <u>NYATNKL</u> FSKDQANGELHLLA MLLNYKKSNEAPNIKFDLKNL SFMLENKDKIDIIQFDDIKNYVQ <u>PAIVNLFESHNR</u> SLNNYSELST LLEDGNENLVPNITDIDNIKLSH MQLARLLCYTAVVESRNSKPW KAIFNNDTNVLTDSFFNHIMNIL NMIKTNQGLAHNVSVVYHIENI QMNLENKPKPRSIETVTDKDF ENKHSDIEVCYVMNSLHPQDV NSQQLMCSSFVELNVLFPCLY NDTLPDDQSMSVFENLYKFEQTK NKSVSKPSRLGNVMFVNSLIDKP ITRETIVNIINSYHNACQNLKRS HRVVGDYRAYERDYKLAALDFI <u>ILMLV</u> TSITHRTLKYNMLNIHEK MFQELKTVVCKHNAAKLYDILI NYDINKEPLNNFRYNYEVL		
133	alk-exo		MFASLTSEQLLLLKYYKFN NYVKTIELSQAQLAHWRS NKDIQPKPLDRAEILRVEK ATRGQSKNELWTLRLDR NTASASSNSSGNMLQRPAL LFGNAQESHVKETNGIMLD HMREIIESKIMS AVVETVLD CGMFFSPLGLHAASPDAYF SLADGTWIPVEIKCPYNYR DTTVEQMRVELGNGNRKY RVKHTALLVNKKGTPQFE MVKTDAHYKQMQRQMYV MNAPMGFYVVKFKQNLV VVSVPRDETFCKELSTEN NAYVAFAVENSNCARYQC ADKRRLSFKTHSCNHNYSG QEIDAMVDRGIYLDYGH KCAYCDFSSDSRETCDVSL			

ORF	Identity	Library screen	SDS-PAGE - MALDI	MUDPIT MS/MS	Western blot	Ref.
			KREHTNCKSFNLKHKNFD NPTYFDYVKRLQSLKSHH FRNDAKTLAYFGYYLTHT GTLKTFCGSGSQNSSPTKHD HLNDCVYYLEIK ‡ sequence obtained by MS/MS			

MALDI, matrix-assisted laser ionization desorption; MUDPIT, multidimensional protein identification technology; MS/MS, tandem MS.

1. Pearson, M. N., Russell, R. L., Rohrmann, G. F. & Beaudreau, G. S. (1988) *Virology* **167**, 407-413.
2. Belyavskiy, M., Braunagel, S. C. & Summers, M. D. (1998) *Proc. Natl. Acad. Sci. USA* **95**, 11205-11210.
3. Olszewski, J. & Miller, L. K. (1997) *J. Virol.* **71**, 5040-5050.
4. Braunagel, S. C., Burks, J. K., Rosas-Acosta, G., Harrison, R. L., Ma, H. & Summers, M. D. (1999) *J. Virol.* **73**, 8559-8570.
5. Yang, S. & Miller, L. K. (1998) *Virology* **245**, 99-109.
6. Thiem, S. M. & Miller, L. K. (1989) *J. Virol.* **63**, 2008-2018.
7. Wilson, M. E. & Price, K. H. (1991) *J. Invertebr. Pathol.* **57**, 264-268.
8. Braunagel, S. C., Guidry, P. A., Rosas-Acosta, G., Engelking, L. & Summers, M. D. (2001) *J. Virol.* **75**, 12331-12338.
9. Lu, A. & Carstens, E. B. (1992) *Virology* **190**, 201-209.
10. Wolgamot, G. M., Gross, C. H., Russell, R. L. & Rohrmann, G. F. (1993) *J. Gen. Virol.* **74**, 103-107.
11. Braunagel, S. C., He, H., Ramamurthy, P. & Summers, M. D. (1996) *Virology* **222**, 100-114.