

640 650 660 670 680 690 700 710 720 730 740 750 760 770 780 790 800 810 820 830 840

Helitron-1_Pin RTR BIVDKMVC A BIPDK DTNP CLMSTVS QML GPCGANPS CA

Helitron-1_HM ETS ODIDNLICA BIPDF IVNC FLYDITKT QMI GPCGILNPN SP

Helitron-4_SMO RTI BIPDA RLDP BLVLDVKK HMI GPCGPEFPN SP

HELIBAT1 RSE DDIDRIVKA BIPDE DQCP RLFQIVKS NMV GPCGIONPN SP

HELITRON1_CE RTS BIPDKIVQA BIPNE DNEP BLRIVTT AMMRPCGAQNP SP

Helitron-1_AC --- TIDNVI SA BPNP SDDP SLVAVVTK NMI GPCGNFMNM AC

Helitron-1_SLL CDA TCVDVSVSA QIPDP VTQP KLYSTVTK CMH GPCGPEHPG AR

Helitron-1_AN LDA AMIDEMVSA BLPDE RDDL BLKLVKK HMI GPCGPEVYNS RA

HELITRON7_OS ITI BIPDKIVST BIPDE RQDP LGMULIAE HMI GPCGAKNE CS

Helitron-1_PGR VSP BPDNVI SA QLPNE TTSB RLSLVSE FAL GPCCKG -- RC

Helitron-1_DR NNDNSNDH --- VVADLDTHTC BITE SDN VLSLVSE VOKIS --- TRIS KTC

Helitron-2_DR EEDNDE --- TICDLDRI VSC KLDEB NVDP BLKLVSE VQLS --- RNS KSC

Helitron-5_SMO LE --- QIKKFAENHCT --- DSKLDPD --- FKD VQTK PR KIC

Helitron-1_DVir DLADESSIP --- SVKSFIDHHT BTPNP DVAP --- FLE VQTN YG HSC

Helitron-1_NV QIDSD E --- DVTSLDKITTC --- --- IVLVN RQVR HS HIC

Helitron-1_CQ DVSEDM --- ATTETINTCSI --- --- WLGPLGK KOEHA FT RIC

Helitron-1_Cre DTADGMA --- SAPAFIDYASA --- KLDR EADP WLDLVRK YQTHG FT FIC

Helitron-2_Cre RLRKALADPRSCP --- DVLDELSSVQWFW --- ASLFLS GGERP --- --- --- RDGIC

Helitron-3_Cre RMRLEFEGPNC --- RALALAQALCAM --- WYBE --- YYP KGADVLVYGSYRVPGPSGGVVPWRVATISGSSGSPALDAAVAVPVVEAGNTAADAMCDDLPGPPEVPPAVDRLPAAHDFGIIAGSRLAQAAGAMAGGELGVKRLIR - KRCARLATV TAT --- TMT C

Helitron-4_Cre LLERQFNHNAVGMARQASLDLWQPALQALALERM --- TCBAF FEAP TLLRRQPEPEF --- ADDLPRALAEIATLALPVPGATTSRDRPATYSLDVLRLRQAGWPCAQLDTTEVALDAETAPPALRWFRMSTTQQLLSAYDRVALARVHRCVLQACTH --- FT SPC

Helitron-1_VCA RLQALFSGPNC --- RALALAYALCAM --- WYBE --- YYP --- FTRGAEHYVMDMTVEEAQQHGRAPPPVKSCPPAAAYDFGLRAGC --- AGGLPPPPHAAACRAHAAVRS --- THTT --- HN DTC

Helitron-2_VCA NLQALFSGPNC --- RALALAYALCAM --- WYBE --- YYP --- TPDSGTQPLVMGMSDAEAQHGLPVPAVQDCPPAAAYFRLAGC --- ANGGLPPPSRHAACRAHAAVRS --- THTS --- HS SPC

Helitron-1_PSO SQQMKEAI --- SSNAAPFT --- RLTVHCHLST --- TISVVBSPNRCFNEDAGELKPVVYGDYRKB --- LPGAHPITSCCQICNVKYRDKDVINAADIARNAVKLSPEINDFTRCSPRRNNDSSLSALPESLIVRD --- VQVHY --- WSA NPQ

850 860 870 880 890 900 910 920 930 940 950 960 970 980 990 1000 1010 1020 1030 1040 1050

Helitron-1_Pin MKDGK CIKGYEKP LAEVIQAN ANGVYVYRRRRRGGVLFKFGREY --- DNATINQVVPYNP LLSQKNCNINVB VCHDIT AVKLVKYYVYKSPMVAIT

Helitron-1_HM MKDGK CSKKYEPK FNANIVAV HNGVPRYRRR --- DNGLVINIKGN --- NVDRVVPYNP LLSKKYQAINVBE VCM SVK AVKLVKYYVYKSPMVAIT

Helitron-4_SMO TKDGE CKSHYPERD YCEBTONV GGQPEYRRR --- QEGHTVLKKNK --- PIDNRVVPYNYKYL RKRRAINVBE VCGSTVK SVKLVKYYVYKSPMVAIT

HELIBAT1 MNGKH CSKGYEKP FQNATIGN IDGYPKYRRR --- SGSTISIGNK --- IVDNVWVYNP NCLCKVNCNINVB VCSAIR SVKLVKYYVYKSPMVAIT

HELITRON1_CE MVDGK CSKRYEPK FHPSTILN DDGRYVEYGTQ --- HLDNRVVPYNYKWL LRYNAIMNVE ICSFIE AVKLVKYYVYKSPMVAIT

Helitron-1_AC MKEGK CSKKYEPK LVTDITG HDGPLYRRRAPSDGGFTAKLKIRKTEVEVDRVVPYSEPLSKMBOAINVBE VNSIK SIKLVKYYVYKSPMVAIT

Helitron-1_SLL MNGA CSKRYEPK FCABTRFG DDGPEYARP --- DNGRTYTPSG --- HVDNRVVPYNYALSAKNDCHINVE ICASVK AVKLVKYYVYKSPMVAIT

Helitron-1_AN CDKHSDSNMIV TKRFYKA EGYEYH EBGVPLYRRRADDPRGAYR KAKNN --- DMVRIDNVVVPYNP LLSKRRSHINVE VQRGD VYKLVKYYVYKSPMVAIT

HELITRON7_OS MKGK CSKGYEKP FNDQNET ENGAQYKRR --- NNNIYRKNH --- NLDNRVVPYNP HNLKRYQALHVE FVQSR VYKLVKYYVYKSPMVAIT

Helitron-1_PGR MNGKS CKLGFYKP FAERIVNV DCAVPEYKS --- NDGQTVKHTT --- VFNNGSVVPYNP LLSLTLNQCINVE VEVNIT LKLVKYYVYKSPMVAIT

Helitron-1_DR RKN --- TVCRFNERP PSSRIFITRYNA --- DNLKCKEGESLANKLIKVKVGLNS --- GVNFDSDVAFSSIQINQVPEQAYNCKSKKTIIVLRNPK DVMVQVYNP LLSLTLNQCINVE VEVNIT VYVYKYYVYKSPMVAIT

Helitron-2_DR KCK --- VVCRFPKPL PMPKMITHPMPERDDEGDEPTSAAKKARRDAAKAMNEAKSKLPLWDLNDPKSSLDNLSDLLTKCNLSMDD LNYABGLTIGSAVL KRDPK ETWVQVYNP LLSLTLNQCINVE VEVNIT CHMMLSHVYKSPMVAIT

Helitron-5_SMO KAYK --- NINCRFNIEP PMPQIBLPPK ITHKEDSVYIYKIKTILBD --- KIIDLNLEFDEYKIGITYQKATIR STITNKKIYKRPK DINTNIFNKLNSLQSNVDIQLDDPYA PLSGLSYIACIETEIT

Helitron-1_DVir RREV RAQNICRFGIYFP PMPQIBLPLEE --- DAENKEVHRRFKIQGLVEYFPDRSEIDYLSDFNNFLTHDQNLNSYECVINALR SSIKPKIYKRSFA AIKLNAYNTE LLSLORANIDIQLLDDPYA CCSVMVYNYKSKSQRTIS

Helitron-1_NV RKNY --- SSKCRFNIEP PMPQIBLPLEE --- DTPKEIKIYRDNKAIQVVLDE --- SKEGEDITFDQLVNLNITKQVLLAVSSINTPTVFLKRNPN ELRINNYNPDL SARRANMDOQLDDPYA CAVVYNYKSKSQRTIS

Helitron-1_CQ MKN --- DKKCRFNIEYV PMPNEDRVVPLPA --- DDSRRSALKRALFRELLET --- KTFETLEDFLADCEETEEYVLEVIRAWLQRPAFFFKRPMN OLVNPFNVVIGGVLRNSLQQLIMDEYS CASLVYVYKSKSQRTIS

Helitron-1_Cre --- GGLDGPORFLYAKD ACEATRIR DGMVVPYSEPL LLSLTLNQCINVE VEVNIT RAAVYVYKSKSQRTIS

Helitron-2_Cre TTSKSHKATDSNCRMLERM LHWLITY HEQSVCHLRY HEQSVCHLRY AVKLVKYYVYKSPMVAIT

Helitron-3_Cre KHCAGCAGVDCGMEYERL VRRRFOWI GSGGLFALRY GRMIVSHMVAVMAEGANNFTLAEVDRLQTEVAVALERDP --- PVQDPVAVVPTVMAQLRAHLSYKAVYKSPMVAIT

Helitron-4_Cre --- WKLSIICRMIVGRDRVLLAEOLS PDGPLLLORT GEMIVSHMVAVALARGCANNCGTVDVGRLELAPQLGSAALLRW --- RATPDRRGCP LPRDNALDSFMSKAVYKSPMVAIT

Helitron-1_VCA KHCGRGTDDSGMAFERV LRSAFOWI GTGGLFLLPRL GPNIVPHMVAALARGCANNQLEFLAEVDRVYTAEEAQAQLAR --- EDERGDCALLQPADRARD SAYSYSKAVYKSPMVAIT

Helitron-2_VCA KHCGRGTDDSGMAFERL IRTAFOWI APNVPHEMVAHALARGCANNHMSLA EVDREYTDIAAQAQLAR --- PNERGDCSLQPAIDRARD SAYSYSKAVYKSPMVAIT

Helitron-1_PSO FKPTRRTPKASVRSFKHE PRLNTIC --- DDGNDLQSRPIC SEVYVAYNRTMLTKQNDVQLVIGASA --- KNAAMLCYKMKQSPTE

1060 1070 1080 1090 1100 1110 1120 1130 1140 1150 1160 1170 1180 1190 1200 1210 1220 1230 1240 1250 1260

Helitron-1_Pin LTVBEVRG GQASARREPNE LRELSARVTSVBAQMLRD FTIQGKHAWTODVHLESG TIC FRETEN PEAVLERG SHTMTRFF BLCAEEBQNH IARTMLYQ DTEKBEFC

Helitron-1_HM VLNNEQVN HDEI NTPDCRYSAPPALWRIPE YPHSHMSHSIRKVLHPEN IVY FREGEE QVALDRA AQRDTHTAWKLNSENE GANRYSYV DTEYHFV

Helitron-4_SMO VRRRDEEN QBYDGRYSABEHWRIYG YDHGRSHSERRDHELENL ONIY FNDGEE ETALORG RKTCTDWFBLNKIDE FARTLYH BTEBMYT

HELIBAT1 ICHSEKNI LNHDDEV QDEDSRYSAPEAVWRVLF MRMHDCSHARTLREHLEND ONLY FHADDF AEVLDRA KHNHSLMAWFLLRNDE DARNYYVMVIIIDNYNVE DTEYHYV

HELITRON1_CE LNHQNVRL RHEHLDARYCAPEALHITG FKLKKAQSVTQ QLESS SQTDTLTAWKLNQKSKDIAESGNIPSTFV DSRQFFYM DMEHTHT

Helitron-1_AC FCHTNER NDEV SOYLQCRYSSEAVWRVFS FPIHERHPTVHLSVHLENG RVY FTRDNA ETVAEEP PNTLTAFQQLCOODL FARTLYP EYBKYVT

Helitron-1_SLL VVVGGQGA DVGIVHGADARQDEI QBYDGRYSABEHWRIYG FPMHEEKPTVLRPEVHLKDO IVF FNAHDD AENIINN RISKTCLEDFWFTANKDHP EGRHEPYQ DTEYHFV

Helitron-1_AN MR --- SKVADEV DLYDARYCAPEAVWRVLR FPLHQEWPPYALVYHVPAR HLIV YNSAGD MRLEDCI DGGKSMGFF YNAHAANPANAAL ALNRVLYA KMPQFT

HELITRON7_OS IIFQRIKQ GIDHSENEQTEKDEI EBYEORVYHCDQEMWRLLE YEHYHPPVVERMPEVHPLPM NMVK LTKDTK DNQRTLEDFWFMANQLEH EARNLYC ETEYHFV

Helitron-1_PGR LSV --- DSKDEV RSYVDCRYSABEHWRIYG FPLSDRPPVTRVLAHDEDE VLV FEGCDD LAQIASG KANRTLTLYGELMADNALGADDV PARSIFYE DTEYHFV

Helitron-1_DR LLRQRAQN EALNG ETIHTLHNSPEHSAQBSVRLFC MHLKCRSRKQVFPVQSNPV KMSLPLHLHNRQA QVMSYRRLVDRVYKRPQKE PLKDCLA SFCSPYRLLTKSE

Helitron-2_DR GPKNVIQ SVREA NVNEEDEMKHMQAYAKRQVSAQBSVRLFC LPLKCSRSVFPVPTDDDL KMSLPLSVLLNKN PSSEVVMVSGLEKVRARPLTE EFKVCLA DFPASVRYVYGGQ

Helitron-5_SMO KHSSTVFK KCQEE GTDAFNRVRLGNSFTRGRBMPIQOALPRLS IPPHMSRIVKRPDTKPBQO RKR LKMDD DSDTIDVWGLLEKVMORPE ELEDLTLA BITTEYIETEYV

Helitron-1_DVir KLMRAVVS EISRG NVTLKQRLQHGHRFNSGTEHSAQBAVYCLE MSSESSNAVVRINTSLPEN RVGL RKSQQ LQNLPP DEVALTEIGLIDHYVORPD ALDSCLA DFAAVYFSKRRHS

Helitron-1_NV ELRREACT EARQG NKTIQOQRDITGSRFLNVEISAQBAVYHLE LPMKSSRQRLINTSPPE RVLD LKPMDN INEMDD DESEITLSEGLKRYSKRPL KLENTLA DWAAVYDCAKPYD

Helitron-1_CQ AFHRELLLELQYQP DYDYOGLKRLGVRVNSVQCSQBAVWRLR LPMSEASRKEBVPVTPMWPNE RTRC RKRHQ MDNEGLDD DSDTIDVWRINIVKYEDRD GLEDVCLA DFWAVYAPMKSTYK

Helitron-1_Cre RKTIVQEA VGMPED --- APAAAVRRACTALSKREYSQBAVWRLR GSTLKLGRSSRATVLCRCPKQERPGIAAARNAPAANT DG ERDVLAINHYDYAARPLGLTGALGAPR (187) SWEDVSLF MFLSEF

Helitron-2_Cre SRALIAAATMLRRR (74) SATVAALRTARVPVGAQAQREGMFNLAHANLLTAQTFSPAPAAALLMR GDAHESHQFRADYRMFSQHVQSG LKRADPELRPRDTQLRLVRTMGSVGAGSPPREGC LRAASTIASDVP

Helitron-3_Cre AANLKALAATREF --- LAAPGAALGQGYAPTVENPAARFGNVMAAVNRLTISVYEMAMAAYLGG DEBITVYQTLTHGAFAA LAAPGAGPAGDSRWKEGKGGVDTIIVIPDEEDDG PDAPAAVTCVSHYLRGPTEL DCEBCP

Helitron-4_Cre LEALMRAAYRLTRG (27) VAAATPQAPTAATAPAPPTTVSVLSAIIHAATGKMSRGLMAMAFQNLG YSTAYCSQDDVLDVQPLMSIVLNTQVPIQPH RYTHDT TRLRHLLNTDNIYRGPEL DSEWCA

Helitron-1_VCA AQTICNALTRVQDF --- LLAGRTPNFAGSGPTAFGNLCATVYHMTATITAGMALVAMKLDG HSTFAPAEKAEVYNDAFATA LSAGAE QSPAAATTAAVLVEAEQGGYVYNAVYSVLRGBEL SGLDCSV

Helitron-2_VCA AHTTCAVGRVQDF --- MMAGHRPSATGGDSTFGNLTVYHMTATITAGMALVAEKLSG HDTFOAYKRYVYHCAFTA LASESA VEPEDAETGVELVEAEHQGGYVYNAVYSVLRGBEL SGLDCSA

Helitron-1_PSO NEVRFVGVFNKAV --- EKADRSTHHTAERRGYKLSMAYALTNQGEVAPMAGSLYHR GSPFWFSHEHTVYVYKMK LQSTNS --- PTVEITLPEDINSDSNGPVNSGKRKL --- TLEQTMR --- ETEKTHDYRSE

2530 2540 2550 2560 2570 2580 2590 2600 2610 2620 2630 2640 2650 2660 2670 2680 2690 2700 2710 2720 2730

Helitron-1_Pin PCSEHGQLYVAMSRVTSRSRPFKALVEYPK--LEBEDGVYAQN
Helitron-1_HM PCSEHGQLYVACSRTRAFNSLFFKIDKHPIQGMVGEK-YYTNN
Helitron-4_SMO PVSEHGQLYVALSRGTSKSKOITMSIEQCEGGVQLQNHVYTKN
HELIBAT1 PVSEHGQLYVALSRVRRACDVKVNTSSQKLL
HELITRON1_CE DVSEHGQLYVALSRVRRKKEGLVVKSSNI VTN
Helitron-1_AC PCSEHGQLYVACSRVGSNNLFWYAPGK TKN
Helitron-1_SLL PVSEHGQLYVALSCCTSERRHKVLPFHGS NDRRTVN
Helitron-1_AN PAVSEHGQLYVAMSRVTDVRRLSVLLPPGV RTTNN
HELITRON7_OS -----
Helitron-1_PGR DVSEHGQLYVAVSRVSDVEMLLVVRPANR SGILN
Helitron-1_DR KIPITAGQYVALSRVRSLSGLLIDDFQES --VIFCNEKIELTMSKMQ
Helitron-2_DR KIPITAGQYVALSRVRSLSGLLIDDFQES --KIYADPBITTSLERMK
Helitron-5_SMO KTKYPSQAMTALSRACITKGLTBYRPIEH --KHINKINDAAKEITIRMT
Helitron-1_DVir SRMQRAAMTVACSRATHASGLHPIGDFVP --PKPPKNDKQVQNETKLR
Helitron-1_NV KRAIPHIHYVALSRVTLIDGLMIDPLCES --KIAVNTDVQTEMHRLR
Helitron-1_CQ RSOEORIVYVALSRVTSLEGLMITYADNPSLDPSKEKPVFHHAKANNPAMRELRDEYKRLR
Helitron-1_CRe SVEDAGQYVALSRVRSIAGVLSQYVST SLEKVPSPQVSAEYERLR
Helitron-2_CRe -----
Helitron-3_CRe ICTSRACIYVWLVDRYSMDVQLRPLFTNSLERD--LVVKSFLQATQLPDDLAEDRLR
Helitron-4_CRe THVGRSRYVQLSRFTRFSDVRELRPLRPLTHGNAEQRE--HIIQKFTDAAIMSNDLQABLRLR
Helitron-1_VCA NGIKRATVYVLLDFKKTIDHVEHLRPLRPLTTPHERK--RIIKQFLSATNLEPDLAANRLR
Helitron-2_VCA GGLKRATVYVLLDFKKTIDHVEHLRPLRPLTTPHERK--RVVKQFMAATKLDPLAALRLR
Helitron-1_PSo PCMPHQIYVALSRVTSLSLNTLITDITP-----EYMQQFQPPTYVAEMLRQLALDVPVYIPSEELLKFSKICHNDHLLPSPFTYPPSLRVHSDPKDIEAFGPPARSGTSTTTCQATSGRVDSVRAERGESRCLPSWTRWRPGGPLMPFAGVAHFMLGLFCP---NQQLKRHGLKHAVSFPTETTTMTPEQAGESYRL

2740 2750 2760 2770 2780 2790 2800 2810 2820 2830 2840 2850 2860 2870 2880 2890 2900 2910 2920 2930 2940

Helitron-1_Pin IVY RIFGSE
Helitron-1_HM VIF SNVNL
Helitron-4_SMO IVY KEIL
HELIBAT1 VKH SESV
HELITRON1_CE IVF NEVL
Helitron-1_AC VVY KQVQL
Helitron-1_SLL VVY PEILTGFIRDWQVDFSPILTLFTKVFYSQIIFSSFTISGVSFIFISHQFINVIP
Helitron-1_AN VVY PEVLQDIASLDDVPDWDGGMVIDEAA
HELITRON7_OS LVVI
Helitron-1_PGR VVH RSLFKTKKLNFR
Helitron-1_DR LKHQRGGGVYVYCEKIECHIFTPSELWNLECLYFTVPH--VNLKAAVLYRPSYKIDVFRQHILHIEBLEKH--SGQKIIMGDFNDDIFT
Helitron-2_DR MAKKDCGGVALCKEDIQAE--PRHFIHHVTDLFVVIKVDAPVATIAAVYRPPDPSLGKFLPNIRGLLDYLEMK--ENPPIICGDFNEDHLS
Helitron-5_SMO --ALHTNDYKSEIVEHLKETMAMSYVLEKKN--KQLQIIMLRKPGNIIHPIKQLQKYIKIDN--KKPVITIGDFNIDYQI
Helitron-1_DVir NAPRPKRGIVLYTKNAILLNINSFCPSGRQISGSFVFEHAIFRY--KSVCFLVIYKSPSYPLGLFKTEFEVLFVQQLF--RERCIVLIGDFNLCISK
Helitron-1_NV QNVRPYGGTAVYSRLDYYPG--YPFCSNIHGVEITILRPMIIPHITIVGVSSPTVSI TELCNAMKTELDSL--TQINIFIGDFNVNWS
Helitron-1_CQ --RSGGVAIYRKTITTKTSMAPVYTPPELVSQDRDELFGVADKYGDVCAATVDVMG--TEVLLFSVYIIPGTTLKQKGFELARKLLOTART--GLPMVVTIGDFNVDSK
Helitron-1_CRe ATTADRSATGHLIATYQARPSAARLPPGAEAAWDRASARWNTVQAAQAQAADVGEMPAPTGAGREGGAAAGGHTGQRGRGRRRGLVLPQVAGHRRPRDGEDEGGVEDQRPARRVRAADAAATPAARVAAAPGASGSGGGAGANVAAC--LQQQRAGGGRACRQCCRGGAADGVGRTLADGTLASHSDYNAAVAWGDLTYYDFTSWAA
Helitron-2_CRe --AVM
Helitron-3_CRe --GVEGLTPEKKNAGDMAAASRPMQLGQPHGGVPGVGPPLDTPSPVASVSGGLPAGGASGAGHVEHSEVDVTACYLTAGVMRTLSPKPADVHCDVMEVLFRLQVFNNDLGHRRIQGVPRCYFMGTYFLDRVLPDLPHGSSVVFENVSRWTSLSRLRNLLAGAEDGLNSVDRIVVVHPDVSQAQADKAAVEEAEEASAS
Helitron-4_CRe --ATARAPPMLQYSRHPHPTGDFPPALPATIHSLATQAAIAAAHGPAPPVWFCHDFS--
Helitron-1_VCA -----
Helitron-2_VCA -----
Helitron-1_PSo SS--LMYQCIGLSLSDRSSNMQLYR

2950 2960 2970 2980 2990 3000 3010 3020 3030 3040 3050 3060 3070 3080

Helitron-1_Pin -----
Helitron-1_HM -----
Helitron-4_SMO -----
HELIBAT1 -----
HELITRON1_CE -----
Helitron-1_AC -----
Helitron-1_SLL -----
Helitron-1_AN -----
HELITRON7_OS -----
Helitron-1_PGR -----
Helitron-1_DR -----
Helitron-2_DR -----
Helitron-5_SMO -----
Helitron-1_DVir -----
Helitron-1_NV -----
Helitron-1_CQ -----
Helitron-1_CRe LL-----GCVRALPGCTHSWLYMPLIVDALLPGRARAAF--PFRPNQWRQLVGLLKAGAADAGLIAAQLLLDLWDHISAEAQVQLERCLGLIVSGICTKMATYALGQAVITITTLIRDAEARQLEAVQQQQQQQQQQQQ
Helitron-2_CRe -----
Helitron-3_CRe AAVPATEPRAARTSARLKKPMAAGHWMCGVVDLSSKRVVYDLSLQPSQDNKAVGGLLQWVKLASVAAQRPAAESEWSIVRPADVPRQRMRDCGAYTLFLFAYCMARGLNVPARDTPIDMKAARQAFYMLMTGRVGLRPLFPVG
Helitron-4_CRe ST-----QRRRGGQLITSSWLFMPLIADALLPTASAAHAF--PFQRPDQWLLTEPLRTGCAARAITADRIPLDAPWHATAAWQEVVLTALBEVELVQTLAALAASCQSGQGWADVQATLHAQQLVMLGTDI
Helitron-1_VCA -----
Helitron-2_VCA -----
Helitron-1_PSo -----