

AAV5	MSFVDHPPDWLEE-VGEGLREFLGLGAGPPKPKPNQOQHQDQARGLVLPGYNYLGPNGLD	59
AAV2	MAADGYLPDWLEDTLSEGIQWWKLPKPPPKPAERHKDDSRGLVLPGYKYLGPENGLD	60
AAV9	MAADGYLPDWLEDNLSEGIREWALKPGAPQPKANQOQHQDNARGLVLPGYKYLGPNGLD	60
AAV8	MAADGYLPDWLEDNLSEGIREWALKPGAPKPKANQOQKQDDGRGLVLPGYKYLGPENGLD	60
AAVrh74	MAADGYLPDWLEDNLSEGIREWDLKPGAPKPKANQOQKQDNGRGLVLPGYKYLGPENGLD	60
AAV5	RGEPVNRADDEVAREHDISYNEQLEAGDNPYLKYNHADAEEFQEKLADDTSFGGNLGKAVFQ	119
AAV2	KGEPVNEADAAALEHDKAYDQQLDSDGNPYLKYNHADAEEFQERLKEDTSFGGNLGRAVFQ	120
AAV9	KGEPVNAADAAALEHDKAYDQQLKAGDNPYLKYNHADAEEFQERLKEDTSFGGNLGRAVFQ	120
AAV8	KGEPVNAADAAALEHDKAYDQQLQAGDNPYLRYNHADAEEFQERLQEDTSFGGNLGRAVFQ	120
AAVrh74	KGEPVNAADAAALEHDKAYDQQLQAGDNPYLRYNHADAEEFQERLQEDTSFGGNLGRAVFQ	120
AAV5	AKKRVLEPFGLVEEGAKTAPTGRIDDHFPKRKKARTEEDSK-----PS-----TSSDA	168
AAV2	AKKRVLEPLGLVEEPVKTAPGKKRPVEHSPV-EPDSSSGTGKAGQOPARKRLNFGQTGDA	179
AAV9	AKKRLLEPLGLVEEAAKTAPGKKRPVEQSPQ-EPDSSAGIGKSGAOPAKKRLNFGQTGDT	179
AAV8	AKKRVLEPLGLVEEAKTAPGKKRPVEPSPQSPDSSSTGIGKKGQOPARKRLNFGQTGDS	180
AAVrh74	AKKRVLEPLGLVESPVKTAPGKKRPVEPSPQSPDSSSTGIGKKGQOPAKKRLNFGQTGDS	180
AAV5	EAGPSGSQQLQIPAQPASSLGADTMSAGGGGPLGDNNQAGDGVGNASGDWHCDSTWMGDR	228
AAV2	DS-VPDPQPLGQPPAAPSGGLGTNTMATGSGAPMADNNEGADGVGNSSGNWHCDSTWMGDR	238
AAV9	ES-VPDPQPIGEPPAAPSGVGSLSLTMASGGGAPVADNNEGADGVGSSSGNWHCDSTWLGDR	238
AAV8	ES-VPDPQPLGEPPAAPSGVGPNMTAAGGGAPMADNNEGADGVGSSSGNWHCDSTWLGDR	239
AAVrh74	ES-VPDPQPIGEPPAGPSGLGSGTMAAGGGAPMADNNEGADGVGSSSGNWHCDSTWLGDR	239
AAV5	VTKSTRTWLPSYNNHQYREIKSGSVDG-SNANAYFGYSTPWGYFDENRFHSHWSPRDW	287
AAV2	VITTSTRTWALPTYNNHLYKQISS--QSGASNDNHFGYSTPWGYFDENRFHCHFSPRDW	296
AAV9	VITTSTRTWALPTYNNHLYKQISNSTSGGSSNDNAYFGYSTPWGYFDENRFHCHFSPRDW	298
AAV8	VITTSTRTWALPTYNNHLYKQISNGTSGGATNDNTYFGYSTPWGYFDENRFHCHFSPRDW	299
AAVrh74	VITTSTRTWALPTYNNHLYKQISNGTSGGSTNDNTYFGYSTPWGYFDENRFHCHFSPRDW	299
AAV5	ORLINNYWGFRRSLRVKLENIQVKEVTVDSTTTIANNLSTVQVFTDDDYQLPYVVG	347
AAV2	ORLINNNWGFRRPKRLNFKLENIQVKEVTQNDGTTTIANNLSTVQVFTDSEYQLPYVLGS	356
AAV9	ORLINNNWGFRRPKRLNFKLENIQVKEVTDNNGVKTIANNLSTVQVFTDSDYQLPYVLGS	358
AAV8	ORLINNNWGFRRPKRLSFKLENIQVKEVTQNEGTKTIANNLSTIQVFTDSEYQLPYVLGS	359
AAVrh74	ORLINNNWGFRRPKRLNFKLENIQVKEVTQNEGTKTIANNLSTIQVFTDSEYQLPYVLGS	359

FIG. 1A

AAV5	GTEGCLPAFPPOVETLPOYGYATLNRDNTENPTERSSEFCLEYFPSKMLRTGNNFEFTYN	407
AAV2	AHOGCLPPFPADVEMVPOYGYLTLLNG---SQAVGRSSFYCLEYFPSQMLRTGNNFTFSYT	414
AAV9	AHEGCLPPFPADVEMIPOYGYLTLLNDG---SQAVGRSSFYCLEYFPSQMLRTGNNFQFSYE	416
AAV8	AHOGCLPPFPADVEMIPOYGYLTLLNG---SQAVGRSSFYCLEYFPSQMLRTGNNFQFTYT	417
AAVrh74	AHOGCLPPFPADVEMIPOYGYLTLLNG---SQAVGRSSFYCLEYFPSQMLRTGNNFEFSYN	417
AAV5	FEEVPEFHSSFAPSONLFKLANPLVDQYLYRFVSTNNTGGVQ-----FNKNLAGRYANTY	461
AAV2	FEDVPEFHSSYAHSQSLDRLMNPLIDQYLYLSRTNTPSGTTTQSRIQFSQAGASDIRDOS	474
AAV9	FENVPEFHSSYAHSQSLDRLMNPLIDQYLYLSKTIN-GSGQNOQTILKFSVAGPSNMAVQG	475
AAV8	FEDVPEFHSSYAHSQSLDRLMNPLIDQYLYLSRTQTGTGTANTQTLGFSQGGPNTMANQA	477
AAVrh74	FEDVPEFHSSYAHSQSLDRLMNPLIDQYLYLSRTQSTGGTAGTQQLLFSQAGPNNMSAQA	477
AAV5	KNWFPGPMGRTQGWNLGSGVNRASVSATFATNRMELEGASYQVPPQPNGMTNNLQGSNTY	521
AAV2	RNWLPGPCYRQQRVSKTSADNNNSEYSWTGATKYHLNGRDSLVPGPAMASHKDDEEKFF	534
AAV9	RNYIPGPSYRQQRVSTTVTONNNSEFAWPGASSWALNGRNSLMNPGPAMASHKEGEDRFF	535
AAV8	KNWLPGPCYRQQRVSTTTGQNNNSNFAWTAGTKYHLNGRNSLANPGIAMATHKDDEERFF	537
AAVrh74	KNWLPGPCYRQQRVSTTLSQNNNSNFAWTGATKYHLNGRDSLVPGPVAMATHKDDEERFF	537
AAV5	ALENTMIFNSQPANPGTTATYLEGNMLITSESETQPVNRVAYNVGGOMATNNQSSTTAPA	581
AAV2	PSGVLIFGKQGSSEKTN---VDIEKVMITDEEEIRTTNPVATEQYGSVSTNLQQRNRQAA	591
AAV9	PLSGSLIFGKQGTGRDN---VDADKVMITNEEEIKTTNPVATESYGOVATNHOSAOQAO	592
AAV8	PSNGILIFGKQNAARDN---ADYSDVMLTSEEEIKTTNPVATEEYGI VADNLQQQONTAPO	594
AAVrh74	PSSGVLMEGKQAGKDN---VDYSSVMLTSEEEIKTTNPVATEQYGVVADNLQQQNAAPI	594

FIG. 1B

AAV5	<u>TGTYNLQEIIVPGSVWMERDVYLQGP</u> <u>IWAKIPETGAHFHPS</u> <u>PAMGGFGLKHPPP</u> <u>MMLIKNT</u>	641
AAV2	<u>TADVNTQGVLPGMVWQDRDVYLQGP</u> <u>IWAKIPHTDGHFHP</u> <u>SPLMGGFGLKHPPP</u> <u>QILIKNT</u>	651
AAV9	<u>TGWVONOGILPGMVWQDRDVYLQGP</u> <u>IWAKIPHTDGNFHP</u> <u>SPLMGGFGMKHPPP</u> <u>QILIKNT</u>	652
AAV8	<u>IGTVNSOGALPGMVWQNRDVYLQGP</u> <u>IWAKIPHTDGNFHP</u> <u>SPLMGGFGLKHPPP</u> <u>QILIKNT</u>	654
AAVrh74	<u>VGAVNSOGALPGMVWQNRDVYLQGP</u> <u>IWAKIPHTDGNFHP</u> <u>SPLMGGFGLKHPPP</u> <u>QILIKNT</u>	654
AAV5	<u>PVPGNI-TSFS</u> <u>DPVSSFITQYSTGO</u> <u>VTVE</u> <u>MEWELKKEN</u> <u>SKRWNPEIQY</u> <u>TNNYNDPQ</u> <u>FVD</u>	700
AAV2	<u>PVPANPSTTESAAKEAS</u> <u>FITQYSTGO</u> <u>VSVEI</u> <u>EWELQEN</u> <u>SKRWNPEIQY</u> <u>TSNYNKSV</u> <u>NVD</u>	711
AAV9	<u>PVPADPPTAFNKDKLNS</u> <u>FITQYSTGO</u> <u>VSVEI</u> <u>EWELQEN</u> <u>SKRWNPEIQY</u> <u>TSNYYKSN</u> <u>NVE</u>	712
AAV8	<u>PVPADPPTTFNQSKLNS</u> <u>FITQYSTGO</u> <u>VSVEI</u> <u>EWELQEN</u> <u>SKRWNPEIQY</u> <u>TSNYYKST</u> <u>SVD</u>	714
AAVrh74	<u>PVPADPPTTFNQAKLAS</u> <u>FITQYSTGO</u> <u>VSVEI</u> <u>EWELQEN</u> <u>SKRWNPEIQY</u> <u>TSNYYKST</u> <u>NVD</u>	714
AAV5	<u>FAPDSTGEYRTTRPIGTRYL</u> <u>TRPL</u>	724
AAV2	<u>FTVD</u> <u>TNGVYSEPRPIGTRYL</u> <u>TRNL</u>	735
AAV9	<u>FAVNT</u> <u>EGVYSEPRPIGTRYL</u> <u>TRNL</u>	736
AAV8	<u>FAVNT</u> <u>EGVYSEPRPIGTRYL</u> <u>TRNL</u>	738
AAVrh74	<u>FAVNT</u> <u>EGTYSEPRPIGTRYL</u> <u>TRNL</u>	738

FIG. 1C

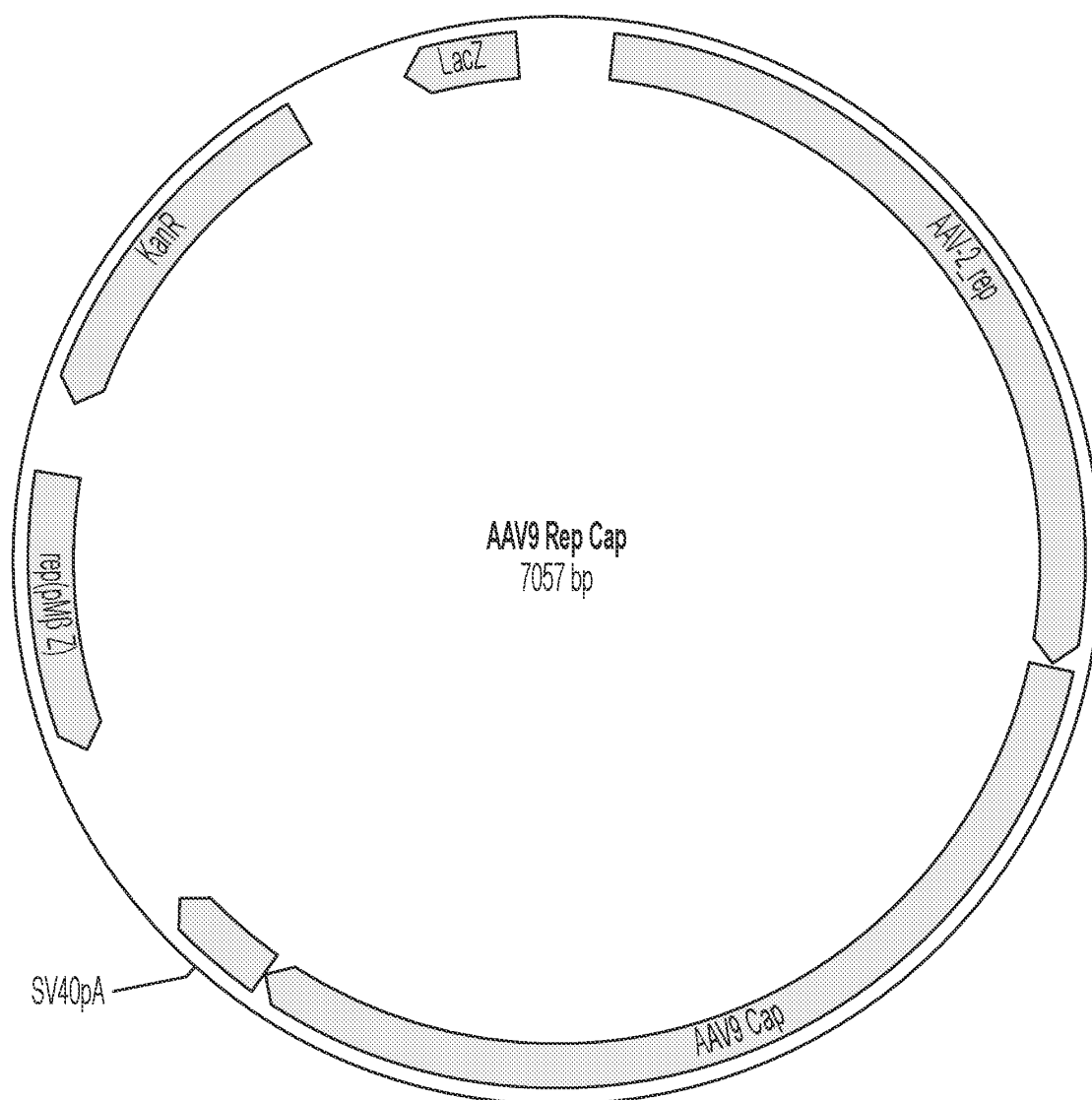


FIG. 2A

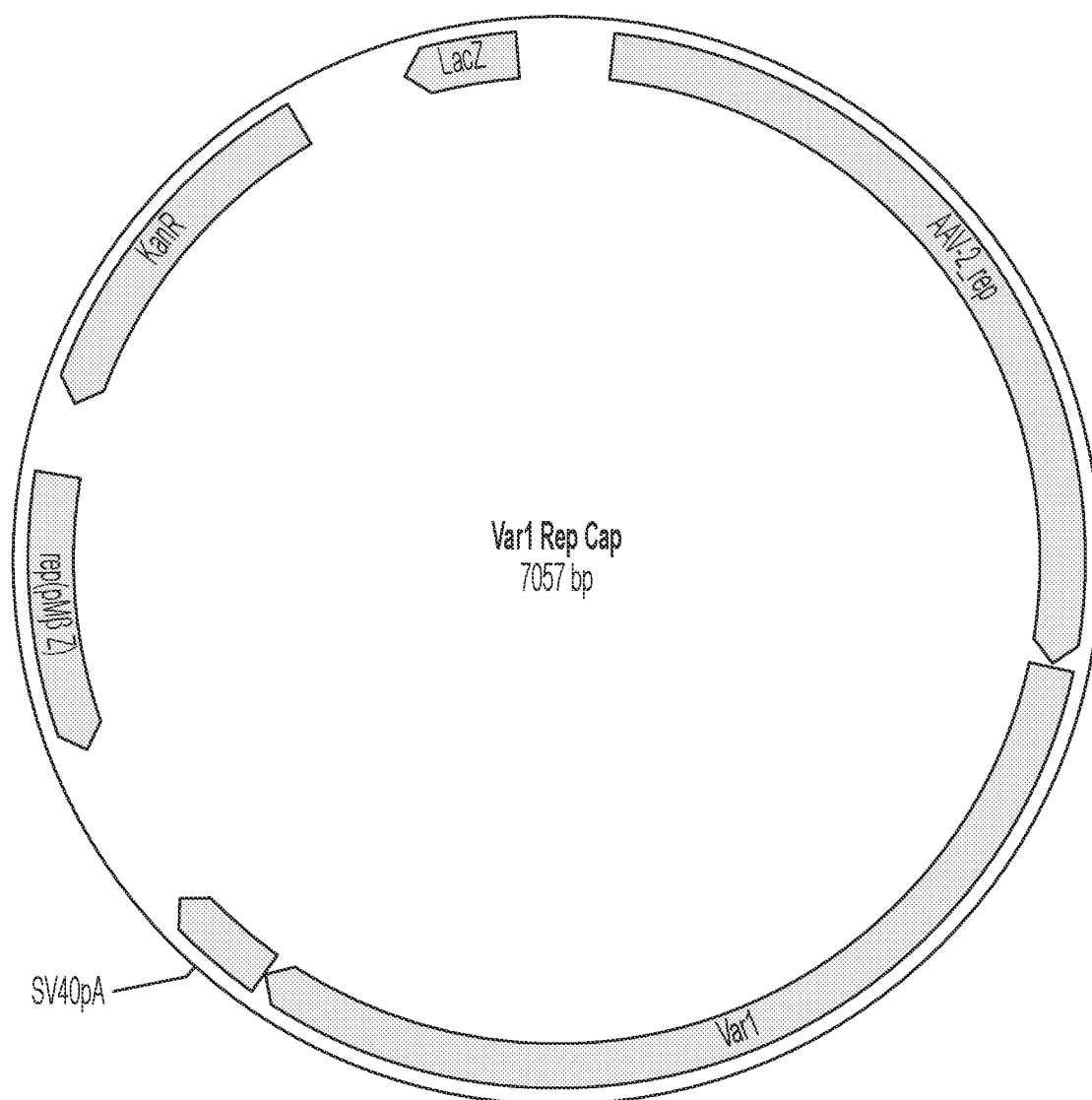


FIG. 2B

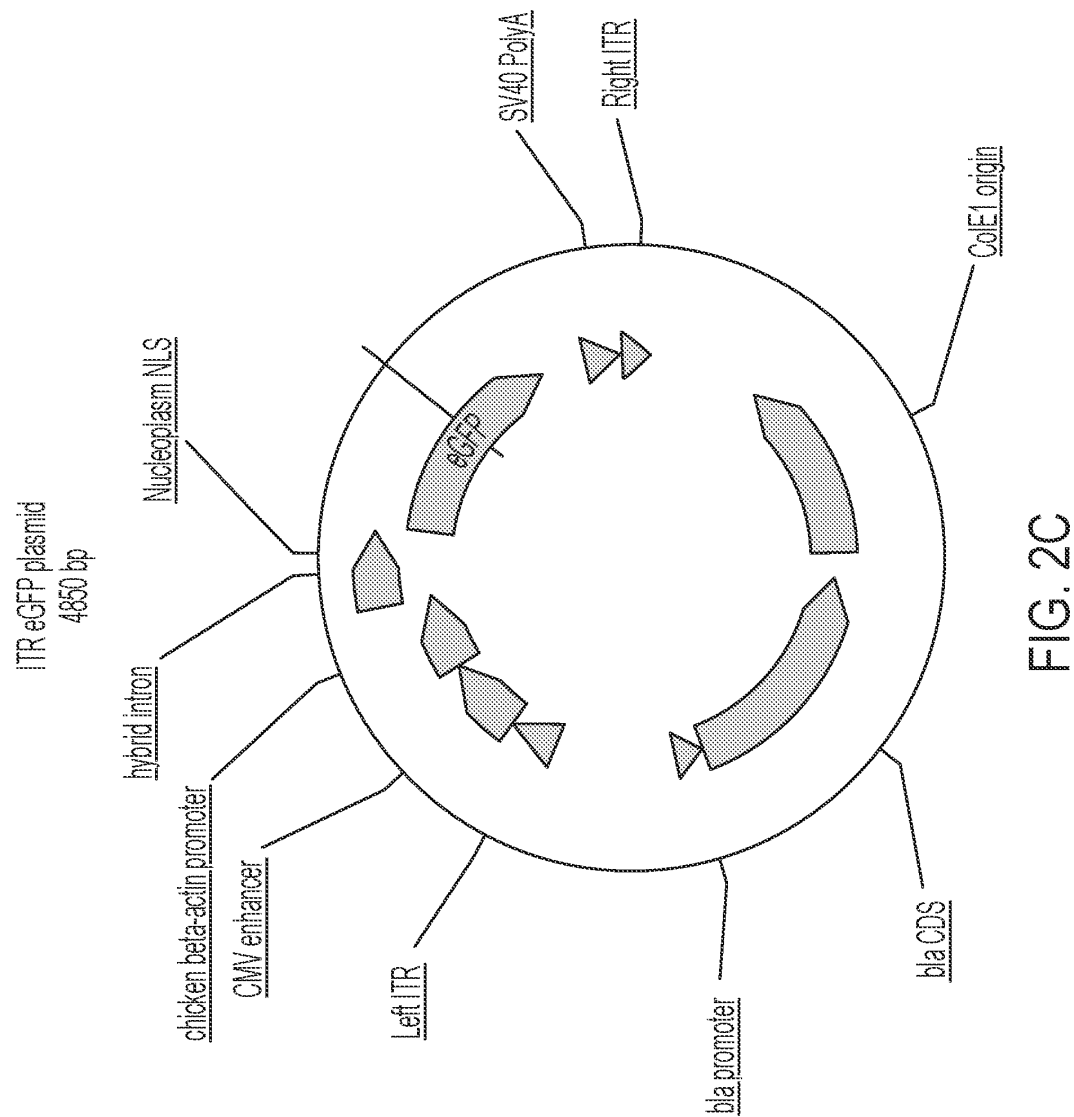


FIG. 2C

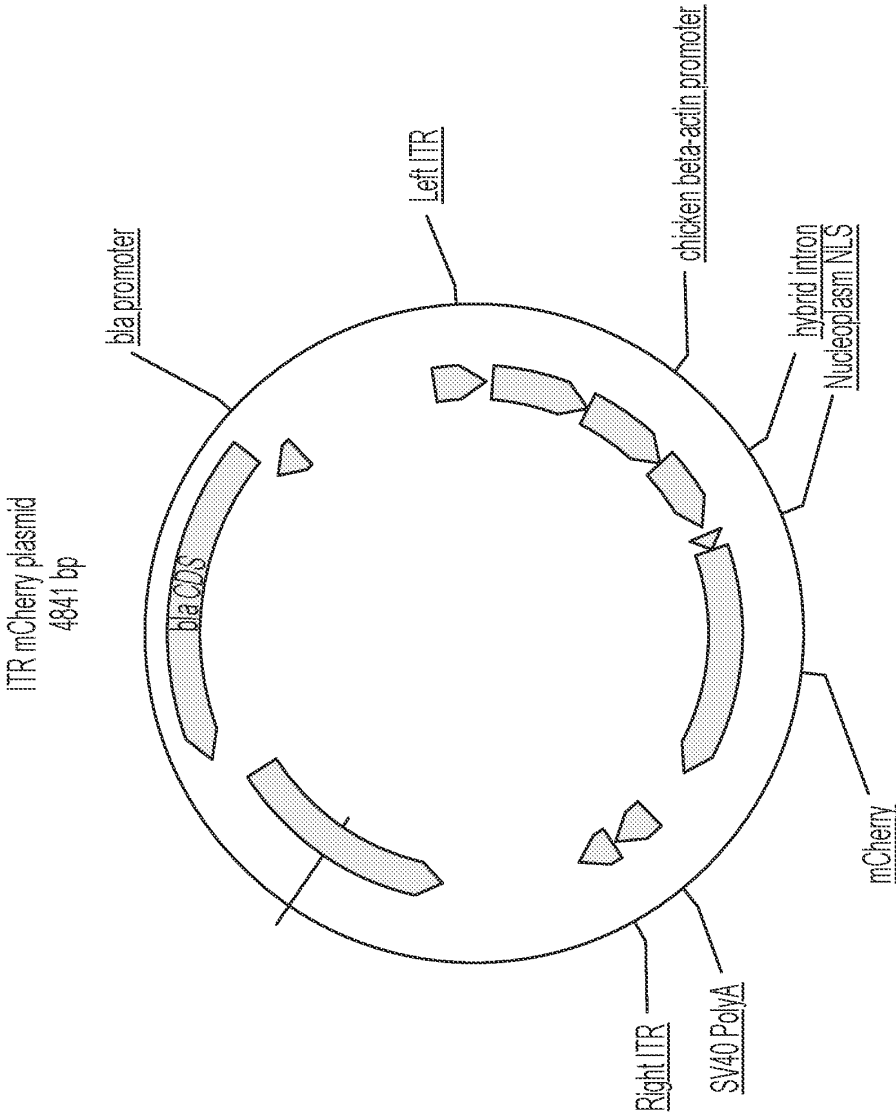


FIG. 2D

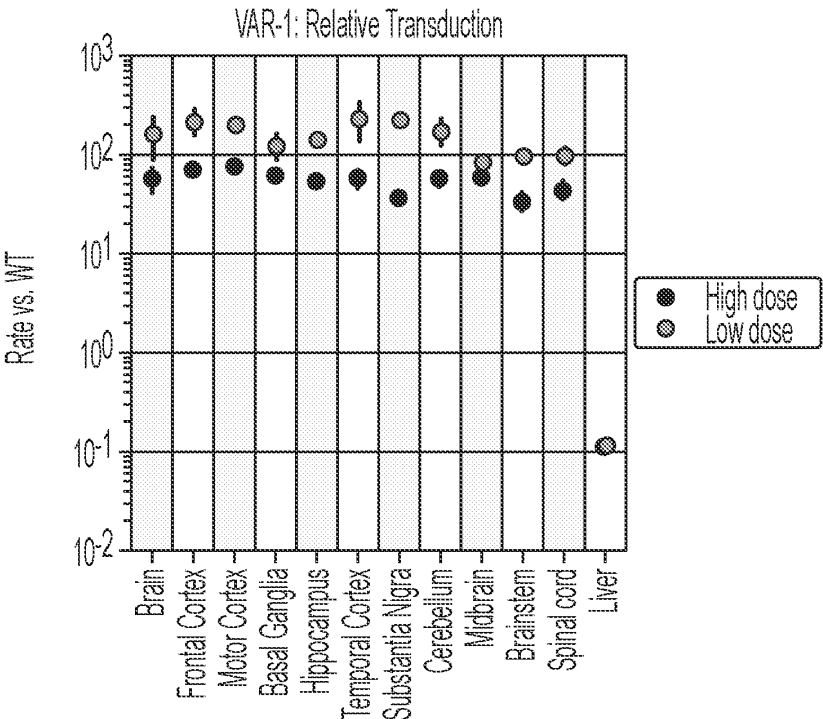


FIG. 3A

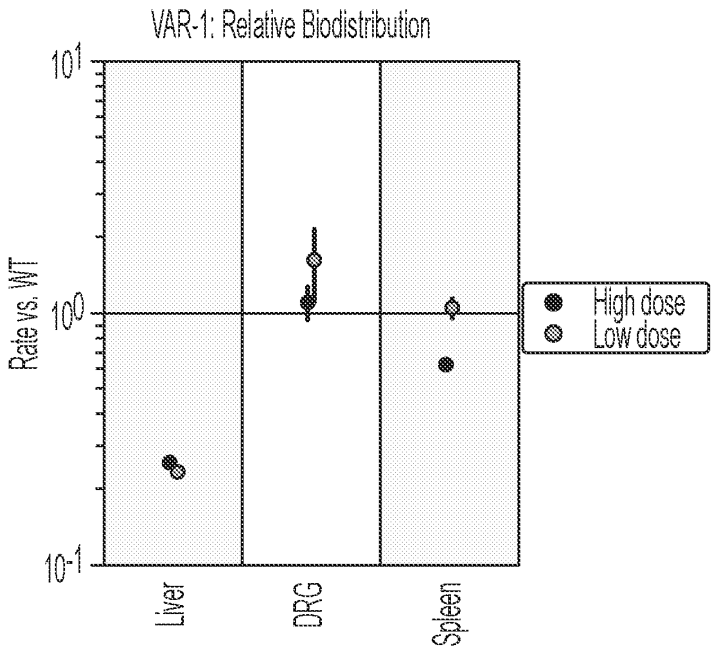


FIG. 3B

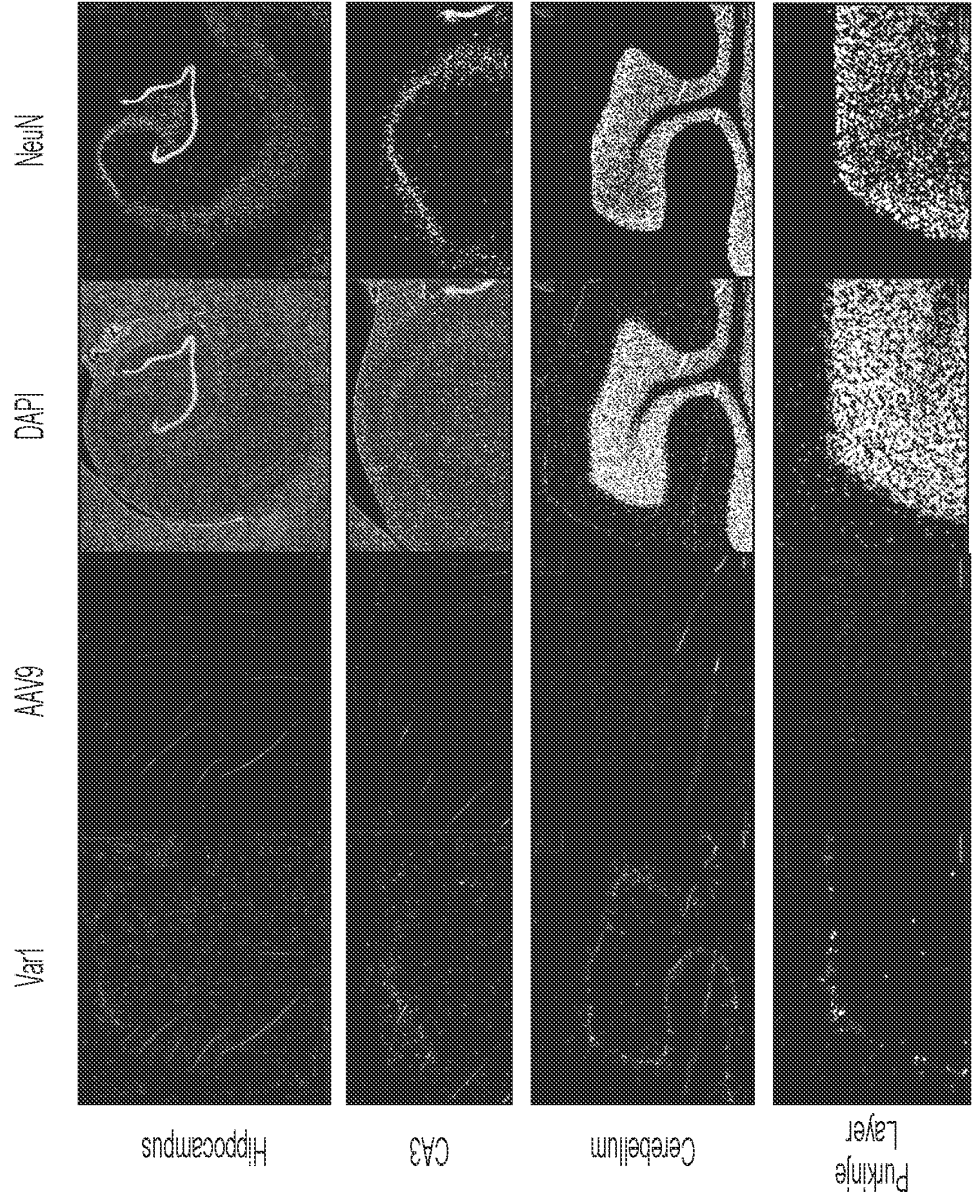


FIG. 4A

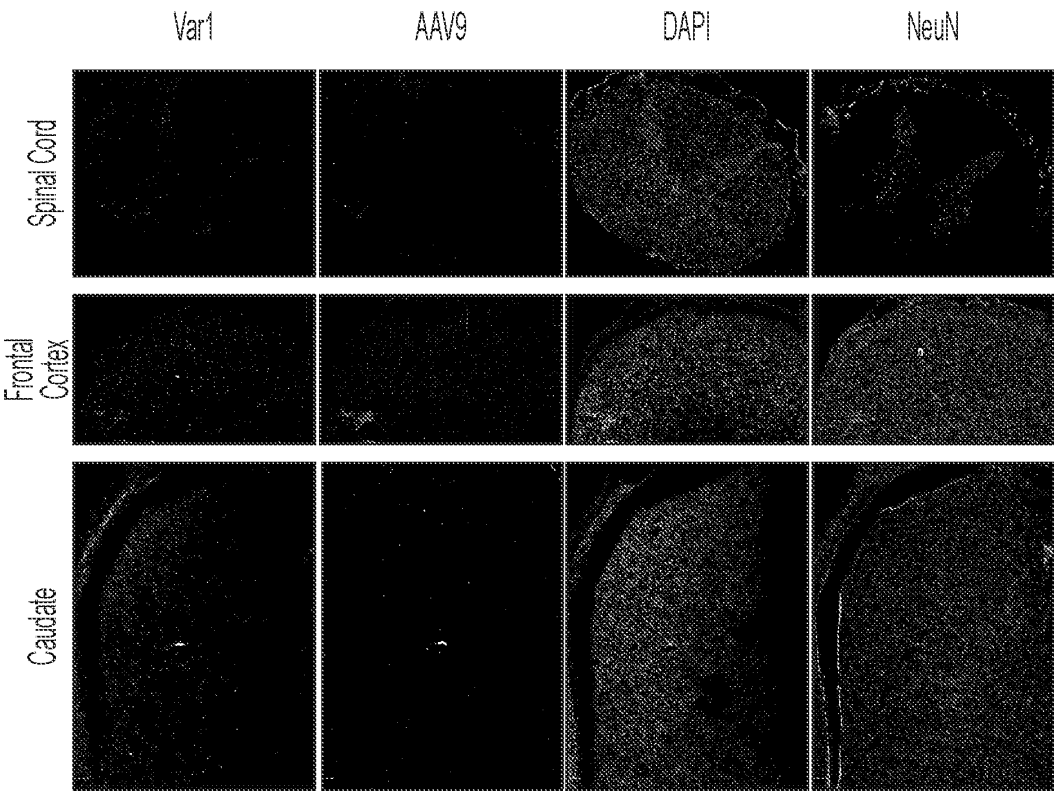


FIG. 4B

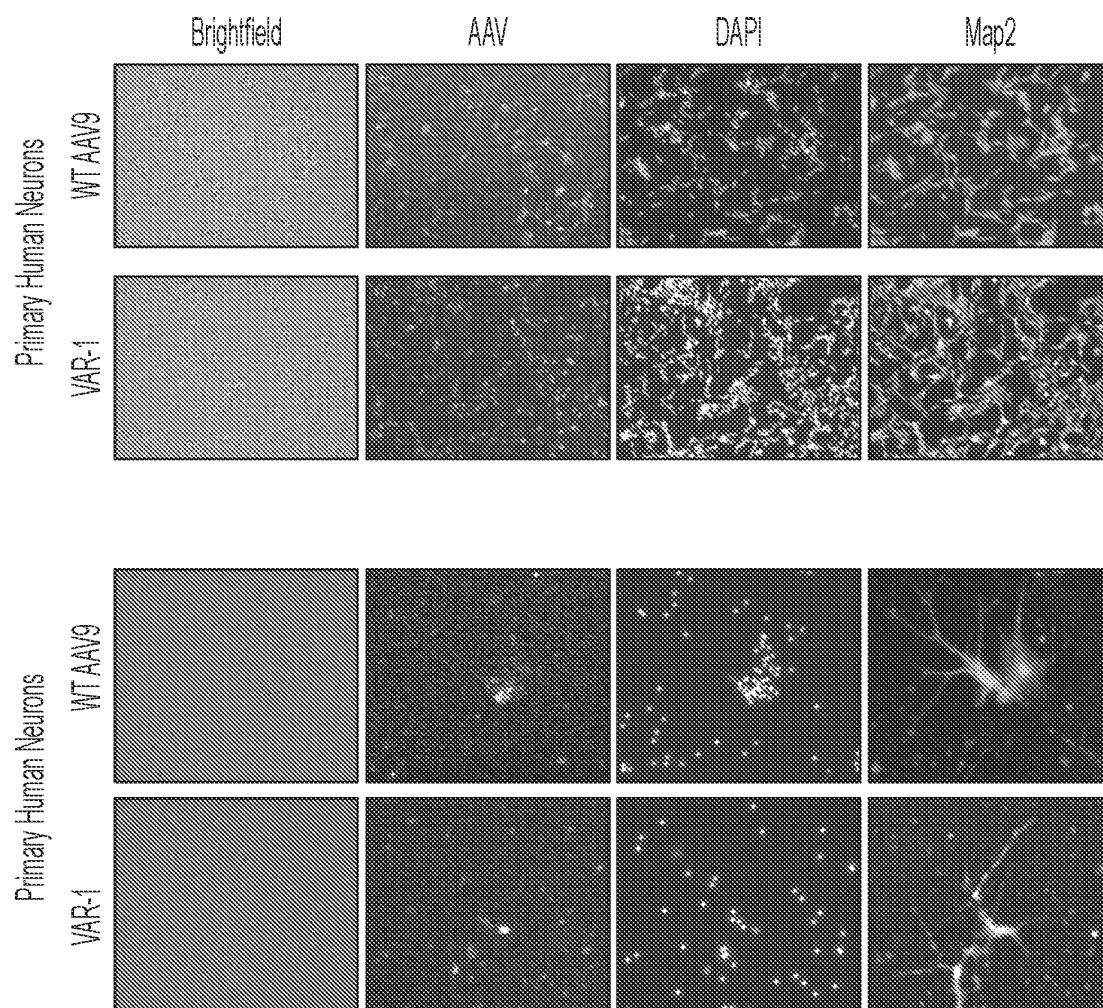


FIG. 5