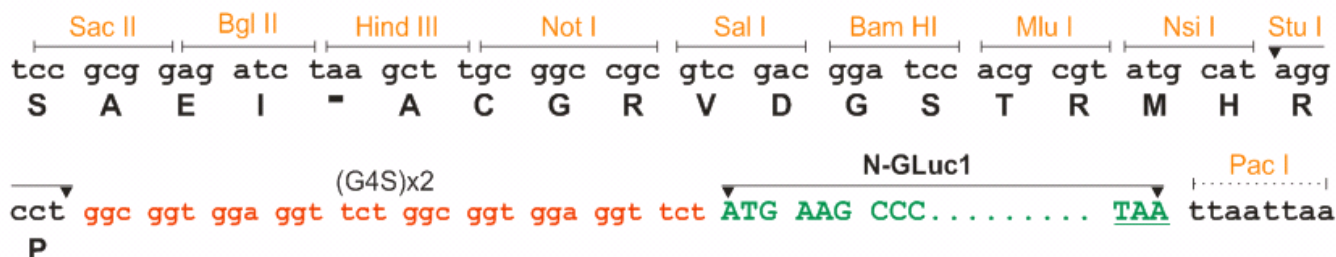
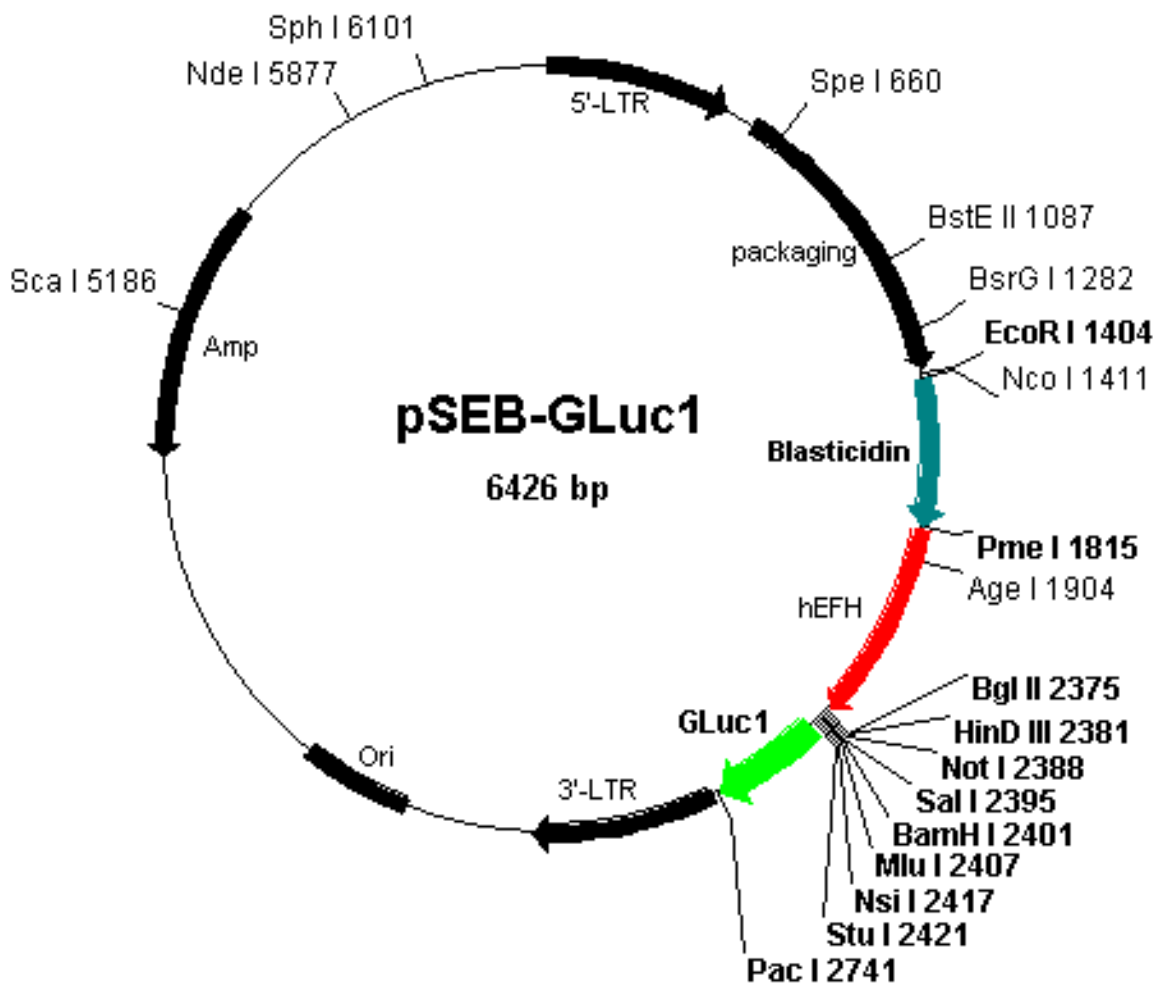


Vector: pSEB-GLuc1 (N-terminal half of *Gaussia* Luciferase for PCA)

Antibiotic Selection: Amp

Creator(s): Bai-Cheng He, Molecular Oncology Lab of The University of Chicago

Date of Construction: November, 2008



pSEB-GLuc1 (N-terminal half of Gaussia Luciferase) Full-Length Sequence

TGAAAGACC CACCTGTAGG TTTGGCAAGC TAGCTTAAGT AACGCCATT TGCAAGGCATGGAAAATACATAACTGAGAA TAGAGAAGTT AGATCAAGG
 TTAGAACAGAGACAGCAGATAATGGGCCAAACAGGATATCTGTGGTAAGCAGTTCCCTCCCGGCTCAGGGCCAAGAACAGATGGTCCCAGATGCGGTCCCGC
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 GTTCCACCAG GATTTGGAGACCCTGCCA GGGACCACCGACCCCGCCG CGGGAGGTAA GCTGGCCAGC GGTGTTTCGTGTCTGTCTC TGCTTTTGTG
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 GCCG CAACCCTGGG AGACGTCCAGGGACTTTGGGGCCGTTTTTGTGGCCGACCTGAGGAAGGGAGTGCATGTGGAATCCGACCCCGTCAGGATATGTGGTT
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 GCATCGTTCT GTGTTGTCT TGCTACTGTGTTTCTGTA TTTGCTGAA AATTAGGGCC AGACTGTTAC CACTCCCTAAGTTTACCTTAGGTCAGT
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 TCGTGACCTG GGAAGCCTTG GCTTTGACCCCTCCCTG GTCAAGCCCTTTGTACACC CTAAGCCTCC GCCTCCTCTT CCTCCATCCGCCCCGTCTCT
 CCCCCTGAACCTCTCCTGTTGACCCCGCTCGATCCTCCTTTATCCAGCCCTCACTCCTTCTCTAGGCGCCGGAATTCACCATG
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 gggc cgg cgt cga cgg atc c GCG GT atgcat AGGCCCT ggc ggt gga ggt tct ggc ggt gga ggt tct
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 AGTCCAATTT GTTAAAGACA GGATATCAGTGTCCAGGCT CTAGTTTTGA CTCAACAATA TCACCAGCTGAAGCCTATAG AGTACGAGCCATAGATAAAA
 TAAAAGATTT TATTAGTCT CCAGAAAAG GGGGAA

Unique enzymes in pSEB-GLuc1:

Spe I	A`CTAG,T	660	Bgl II	A`GATC,T	2375
BstE II	G`GTNAC,C	1087	Hind III	A`AGCT,T	2381
BsrG I	T`GTAC,A	1282	Not I	GC`GGCC,GC	2388
EcoR I	G`AATT,C	1404	Sal I	G`TCGA,C	2395
Nco I	C`CATG,G	1411	Acc I	GT`MK,AC	2396
BsaB I	GATNN NNATC	1711	Hinc II	GTY RAC	2397
Pme I	CTTT AAAC	1815	Hind II	GTY RAC	2397
Mun I	C`AATT,G	1897	BamH I	G`GATC,C	2401
Age I	A`CCGG,T	1904	Mlu I	A`CGCG,T	2407
Cla I	AT`CG,AT	2364	Nsi I	A,TGCA`T	2417
			Stu I	AGG CCT	2421
			Pac I	TTA,AT`TAA	2741

Sca I AGT|ACT 5186
 Nde I CA^TA,TG 5877
 Sph I G,CATG^C 6101

BsaJ I (38) 161 240 250 397
 461 497 546 547
 694 733 734 746
 747 1167 1236 1245
 1265 1266 1411 1716
 1974 2238 2369 2495
 2516 2535 2615 2676
 2951 3030 3040 3187
 3250 3552 3973 6047

The following enzymes do not cut in pSEB-GLuc1:

Apa I Avr II Bcl I Blp I BsaA I
 BsiC I BsiW I Bsm I Bsp120 I Bsp1286 I
 BspM I BspM II Bst1107 I BstB I BstX I
 Dra III Eco72 I Esp I Fse I Hpa I
 PaeR7 I PflM I Pml I Rsr II Sfi I
 SnaB I Spl I Srf I Xca I Xcm I

BsaW I (5) 1829 1904 4019 4166
 4997

pSEB-GLuc1: sites sorted by name:

Aat II (2) 745 5628
 Acc I (1) 2396
 Acc65 I (2) 401 3191
 Aci I (75) 197 203 566 588
 688 727 860 901
 1042 1133 1199 1298
 1317 1355 1532 1614
 1681 1926 1963 2043
 2099 2102 2117 2148
 2155 2182 2369 2371
 2387 2391 2426 2441
 2535 2537 2563 2714
 2723 2987 2993 3289
 3503 3606 3662 3672
 3696 3739 3746 3767
 3858 3886 4013 4032
 4153 4263 4398 4407
 4769 4860 5051 5097
 5218 5262 5339 5448
 5547 5594 5768 5807
 5817 5843 5881 5894
 5920 5977 6236 6283
 Afl II (3) 35 1006 2823
 Afl III (2) 2407 3813
 Age I (1) 1904
 Aha II (9) 742 1398 2355 5243
 5625 5929 6112 6226
 6247
 Ahd I (5) 1020 2709 3236 3282
 4706
 Alu I (35) 30 34 336 580
 668 676 1515 1620
 2056 2062 2066 2204
 2345 2383 2559 2605
 2818 2822 3126 3445
 3478 3573 3637 3755
 3981 4071 4117 4374
 4895 4995 5058 5737
 5756 6001 6357
 Alw I (17) 453 1051 1357 1727
 2333 2361 2397 2408
 2527 4375 4461 4461
 4558 4559 5023 5338
 5344
 AlwN I (3) 2621 2947 4229 5870
 ApaL I (4) 2649 4127 5373
 Apo I (2) 872 1404
 Asc I (2) 368 3158
 Ase I (5) 2737 3456 3584 3643
 4878
 Asp718 (2) 401 3191
 Ava I (7) 331 397 498 1871
 1973 3121 3187
 Ava II (13) 186 199 254 551
 690 1219 1572 2976
 2989 3044 4844 5066
 6321
 BamH I (1) 2401
 Ban I (17) 244 401 1142 1397
 1687 1832 1907 2163
 2354 3034 3191 3557
 4654 5928 6111 6225
 6246
 Ban II (8) 338 351 1677 2078
 3128 3141 6178 6192
 Bbe I (6) 1401 2358 5932 6115
 6229 6250
 Bbs I (2) 1498 2483
 Bbv I (10) 931 939 1524 1629
 1834 4232 4235 4441
 5135 5746
 Bbv II (2) 1497 2482
 Bcn I (17) 164 399 400 571
 724 2219 2550 2599
 2954 3189 3190 4194
 4890 5241 5742 5777
 6128
 Bfa I (16) 31 219 661 673
 1394 1522 1912 2063
 2189 2251 2819 3009
 4308 4561 4896 6331
 Bgl I (2) 4826 5944
 Bgl II (1) 2375
 Bpm I (4) 2587 2756 4776 6394
 Bsa I (7) 476 530 1149 2207
 3244 3265 4767
 BsaB I (1) 1711
 BsaH I (9) 742 1398 2355 5243
 5625 5929 6112 6226
 6247

BseR I (4) 464 1293 1332 3253
 Bsg I (3) 1600 2022 2595
 BsiE I (10) 592 727 1532 1648
 2391 3729 4153 5076
 5225 5972
 BsiHKA I (8) 338 2576 2653 3128
 4131 5292 5377 5874
 BsmA I (22) 107 475 531 609
 734 832 949 1073
 1132 1150 1328 1431
 2208 2773 2896 3243
 3264 4768 5542 5695
 5739 6411
 BsmB I (7) 733 831 1072 1131
 1329 5696 5738
 BsmF I (12) 172 185 564 729
 764 1205 1585 1853
 2622 2962 2975 6107
 BsoF I (46) 727 901 917 920
 925 928 1133 1513
 1532 1606 1609 1612
 1615 1618 1782 1823
 2043 2102 2117 2148
 2388 2391 2560 2563
 2610 2685 2724 3638
 3719 3737 3740 3858
 4013 4156 4221 4224
 4430 4758 5097 5124
 5219 5448 5735 5844
 5948
 BspH I (4) 4533 5541 5646 6170
 Bsr I (18) 374 1030 1058 1546
 1570 1939 1960 3164
 3614 4220 4233 4347
 4753 4871 4914 5181
 5353 6059
 BsrB I (4) 1042 3505 3746 5547
 BsrD I (2) 4767 4941
 BsrG I (1) 1282
 BssH II (4) 317 368 3107 3158
 BssS I (4) 1587 3986 5370 5677
 BstE II (1) 1087
 BstN I (20) 241 548 735 748
 1169 1194 1217 1237
 1267 1717 2423 2616
 2678 3031 3553 3841
 3962 3975 6048 6325
 BstU I (28) 317 319 370 903
 905 1135 1644 1926
 2095 2140 2371 2393
 2409 2512 2537 3107
 3109 3160 3660 3662
 3860 4441 4771 5264
 5596 5696 5698 5801
 BstY I (10) 2337 2375 2401 2520
 4454 4465 4551 4563
 5331 5348
 Bsu36 I (3) 781 1018 2111
 Cac8 I (40) 28 32 319 370
 582 586 631 650
 1199 1508 1622 2064
 2078 2099 2262 2290
 2385 2502 2607 2653
 2816 2820 3109 3160
 3606 3635 3744 3830
 3867 4427 4818 5831
 5979 5999 6003 6099
 6140 6188 6230 6260
 Cfr10 I (8) 629 1904 2128 2260
 2351 4786 6249 6258
 Cla I (1) 2364
 Csp6 I (8) 402 658 1283 1954
 3192 5185 5861 6372
 Dde I (23) 75 167 208 476
 781 1018 1290 1808
 2111 2205 2256 2379
 2863 2957 2998 3267
 3338 4088 4497 4663
 5203 5629 5864
 Dpn I (30) 94 459 1046 1178
 1363 1647 1708 1722
 2339 2367 2377 2403
 2522 2629 2883 4381
 4456 4467 4475 4553
 4565 4670 5011 5029
 5075 5333 5350 5386
 5971 6195
 DpnII (30) 92 457 1044 1176
 1361 1645 1706 1720
 2337 2365 2375 2401
 2520 2627 2881 4379

		4454	4465	4473	4551		5264	5596	5696	5799	
		4563	4668	5009	5027		5929	5950	6083	6112	
		5073	5331	5348	5384		6166	6226	6247		
		5969	6193			Hpa II	(33)	163	398	569	630
Dra I	(5)	1815	2200	4572	4591		723	1401	1830	1905	
		5283					2129	2217	2229	2261	
Drd I	(3)	1500	3921	5790			2352	2549	2598	2953	
Dsa I	(7)	694	1411	2369	2495		3188	3531	4020	4167	
		2516	2535	6131			4193	4383	4787	4821	
Eae I	(13)	582	724	1109	1130		4888	4998	5240	5741	
		1414	1529	2388	2492		5775	6127	6250	6259	
		2498	3652	5094	6128		6274				
		6260				Hph I	(13)	1157	1183	1401	4550
Eag I	(3)	724	1529	2388			4777	5191	5399	5432	
Ear I	(6)	1070	1311	3435	3697		5716	5725	6218	6263	
		5501	5989				6344				
Eco47 III	(3)	923	1826	6167		Kas I	(6)	1397	2354	5928	6111
Eco57 I	(5)	1509	2077	4360	5374		6225	6246			
		6378				Kpn I	(2)	405	3195		
EcoN I	(4)	784	1392	1915	2110	Mae I	(16)	31	219	661	673
EcoO109 I	(6)	254	1219	1572	3044		1394	1522	1912	2063	
		5682	6136				2189	2251	2819	3009	
							4308	4561	4896	6331	
EcoR I	(1)	1404				Mae II	(10)	742	1081	1122	2019
EcoR II	(20)	239	546	733	746		2302	4516	4932	5305	
		1167	1192	1215	1235		5625	6067			
		1265	1715	2421	2614		39	994	1022	1087	
		2676	3029	3551	3839	Mae III	(20)	1231	2331	2347	2827
		3960	3973	6046	6323		3305	4169	4232	4348	
EcoR V	(3)	140	2929	6314			4631	4962	5020	5173	
Ehe I	(6)	1399	2356	5930	6113		5361	5749	6040	6060	
		6227	6248			Mbo I	(30)	92	457	1044	1176
Fnu4H I	(46)	727	901	917	920		1361	1645	1706	1720	
		925	928	1133	1513		2337	2365	2375	2401	
		1532	1606	1609	1612		2520	2627	2881	4379	
		1615	1618	1782	1823		4454	4465	4473	4551	
		2043	2102	2117	2148		4563	4668	5009	5027	
		2388	2391	2560	2563		5073	5331	5348	5384	
		2610	2685	2724	3638		5969	6193			
		3719	3737	3740	3858	Mbo II	(16)	1086	1299	1445	1502
		4013	4156	4221	4224		1530	2487	2675	3451	
		4430	4758	5097	5124		3685	4474	4547	5302	
		5219	5448	5735	5844		5380	5489	5977	6189	
		5948	6021			Mlu I	(1)	2407			
Fok I	(13)	423	1140	1300	1464	Mme I	(6)	829	1106	3252	3304
		1699	2107	2659	3212		4027	4211			
		4672	4853	5140	5783	Mnl I	(55)	167	216	368	387
		6027					432	460	484	506	
Fsp I	(2)	4928	5951				510	566	776	872	
Gdl II	(12)	723	725	1129	1528		1168	1271	1304	1310	
		1530	2387	2389	2491		1313	1319	1349	1352	
		3653	5093	6129	6261		1367	1374	1390	1454	
Gsu I	(4)	2586	2757	4777	6395		1795	1796	1880	1969	
Hae I	(8)	584	1111	1416	2421		2064	2106	2160	2176	
		2500	3828	3839	4291		2425	2440	2562	3006	
Hae II	(12)	925	1401	1828	2235		3158	3177	3222	3249	
		2358	3691	4061	5932		3273	3333	3662	3711	
		6115	6169	6229	6250		3921	3994	4245	4645	
Hae III	(33)	129	173	584	726		4726	4872	5078	5673	
		762	774	987	1111		5731	5991	6275		
		1132	1197	1416	1531	Msc I	(4)	584	1111	1416	2500
		2116	2221	2390	2421	Mse I	(26)	36	1007	1119	1149
		2494	2500	2918	2963		1173	1814	2199	2737	
		3654	3828	3839	3857		2741	2824	3358	3456	
		4291	4749	4829	5096		3584	3643	4519	4571	
		5683	5981	6130	6138		4576	4590	4643	4878	
		6262					4917	5282	5654	5835	
Hga I	(13)	381	642	895	1491		6032	6302			
		2168	2383	2689	3171	Msl I	(2)	4958	5117		
		3923	4501	5233	5791	Msp I	(33)	163	398	569	630
		6260					723	1401	1830	1905	
HgiA I	(8)	338	2576	2653	3128		2129	2217	2229	2261	
		4131	5292	5377	5874		2352	2549	2598	2953	
HgiE II	(2)	4392	5872				3188	3531	4020	4167	
Hha I	(43)	319	321	370	372		4193	4383	4787	4821	
		648	905	924	1400		4888	4998	5240	5741	
		1512	1827	1854	1926		5775	6127	6250	6259	
		2097	2234	2329	2357		6274				
		3109	3111	3160	3162	MspAl I	(14)	588	1620	2056	2371
		3437	3597	3662	3690		2537	2565	3289	3637	
		3723	3993	4060	4160		4155	4400	5341	5807	
		4334	4443	4836	4929		6001	6357			
		5266	5598	5698	5801	Mun I	(1)	1897			
		5931	5952	6085	6114	Nae I	(3)	631	2262	6260	
		6168	6228	6249		Nar I	(6)	1398	2355	5929	6112
HinC II	(1)	2397					6226	6247			
Hind II	(1)	2397				Nci I	(17)	163	398	399	570
HinD III	(1)	2381					723	2218	2549	2598	
Hinf I	(18)	442	450	791	802		2953	3188	3189	4193	
		1437	1769	2135	2254		4889	5240	5741	5776	
		2710	3348	3370	3391		6127				
		3648	3713	3788	4184	Nco I	(1)	1411			
		4701	6339			Nde I	(1)	5877			
HinI I	(9)	742	1398	2355	5243	NgoM I	(3)	629	2260	6258	
		5625	5929	6112	6226	Nhe I	(3)	30	2062	2818	
		6247				Nla III	(18)	62	1205	1415	1822
HinP I	(43)	317	319	368	370		2850	3304	3471	3817	
		646	903	922	1398		4537	5028	5038	5116	
		1510	1825	1852	1924		5152	5545	5650	5734	
		2095	2232	2327	2355		6101	6174			
		3107	3109	3158	3160	Nla IV	(38)	188	201	246	403
		3435	3595	3660	3688		521	552	692	761	
		3721	3991	4058	4158		893	1144	1221	1399	
		4332	4441	4834	4927						

