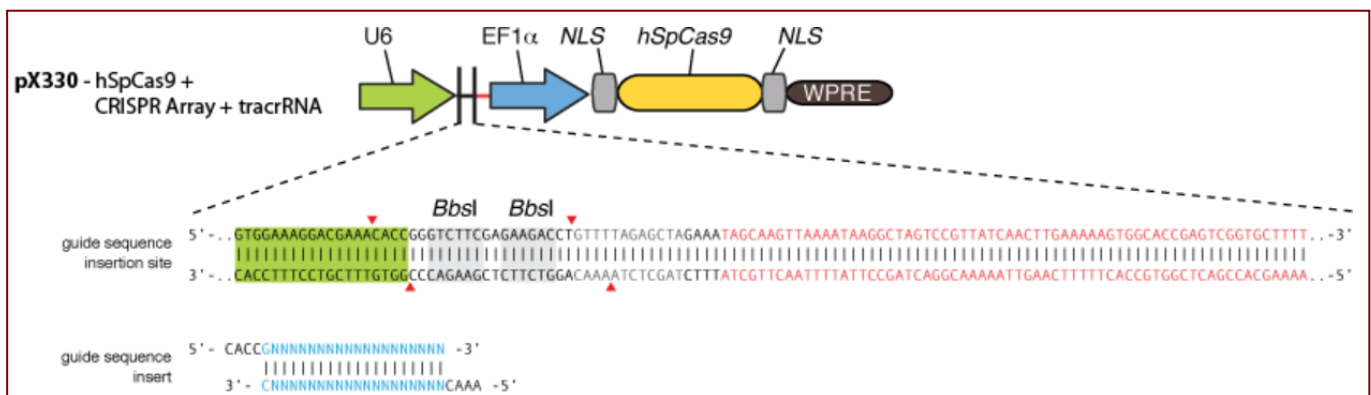
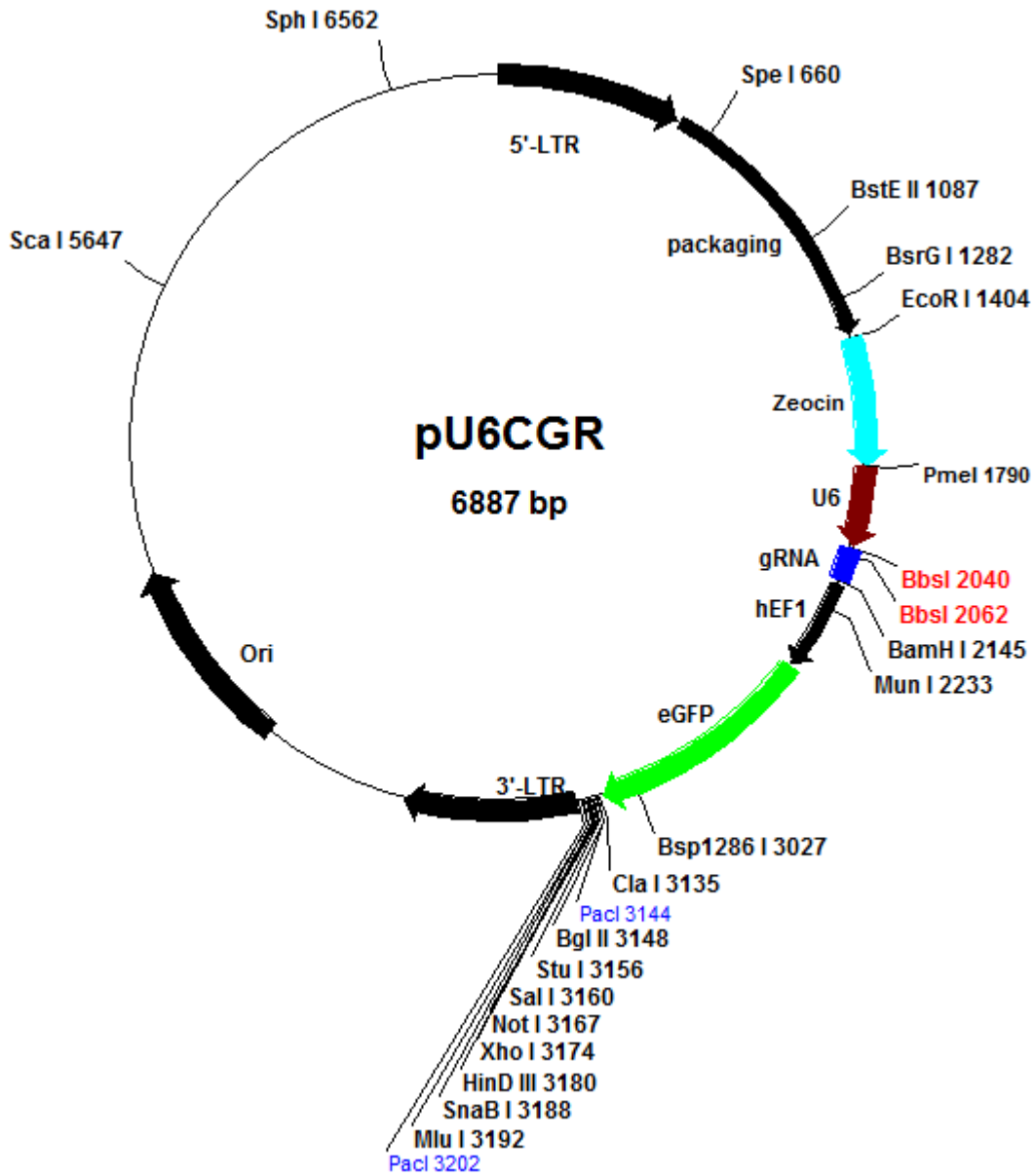


**Vector:** pU6CGR (U6-2BbsI-gRNA adopted from Dr. Fang Zhang of MIT)

**Antibiotic Selection:** Amp

**Creator(s):** Hongmei Zhang, Molecular Oncology Lab of The University of Chicago

**Date of Construction:** July, 2013



## pU6CGR Full-Length Sequence

TGAAAGACCCCACTGTAGGTTTGGCAAGCTAGCTTAAGTAAACGCCATTTTGC AAGCAGTGGAAAATACATAACTGAGAATAGAGAAGT TAGATCAAGGTTAGGAA  
 CAGTAGACAGCAGCAATATGGGCCAAACAGGATATCTGTGGTAAGCAGTTCTCCCGGTCAGGGCCAAGAACAGATGGTCCCAGATCGCGTCCCGCCCTCAG  
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**TGGCACCGACTCGGTGC**TTTT**ggatcc**ggatctgcatCGCTCCGGTGCCCGT**CAGTGGGCGAGCGCACATCGCCACAGTCCCGAGAAGTTGGGGGAGGG**  
**GTCGGCAATTGAACCGTGCCTAGAGAAGTGGCGGGGTAAACTGGAAAGTGATGTCGTGTACTGGTCCGCTTTTTCCGAGGGTGGGGGAGAACCGTATA**  
**TAAGTGCAGTAGTCCCGTGAACGTTCTTTTTCGCAACGGGTTGCCGCCAGAACACAGTGTCTAGC**GTACCGGTTCGCCAC**catg**gtgagcaagggcgaggagc  
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### Unique enzymes in pU6CGR:

Spe I	A`CTAG, T	660
BstE II	G`GTNAC, C	1087
BsrG I	T`GTAC, A	1282
EcoR I	G`AATT, C	1404
Fse I	GG, CCGG`CC	1689
Dra III	CAC, NNN`GTG	1766
Pme I	CTTT AAAC	1791
BamH I	G`GATC, C	2145
BspM II	T`CCGG, A	2148

BsaB I	GATNN NNATC	2150
Mun I	C`AATT, G	2233
Bsp1286 I	G, DGCH`C	3027
Cla I	AT`CG, AT	3135
Bgl II	A`GATC, T	3148
Stu I	AGG CCT	3156
Sal I	G`TCGA, C	3160
Acc I	GT`MK, AC	3161
Not I	GC`GGCC, GC	3167
PaeR7 I	C`TCGA, G	3174

Xho I C`TCGA,G 3174  
 Hind III A`AGCT,T 3180  
 SnaB I TAC|GTA 3188  
 Mlu I A`CGCG,T 3192  
 Sca I AGT|ACT 5647  
 Sph I G,CATG`C 6562  
 Number of enzymes = 25

The following enzymes do not cut in pU6CGR:

Apa I Avr II Bcl I Blp I BsiC I  
 BsiW I Bsm I Bsp120 I BspM I Bst1107 I  
 BstB I BstX I Eco72 I Esp I Hpa I  
 Nru I Nsi I PflM I Pml I Rsr II  
 Sac II Sfi I Spl I Srf I Swa I

pU6CGR: sites sorted by name:

Aat II	(3)	745	1459	6089					
Acc I	(1)	3161							
Acc65 I	(2)	401	3652						
Aci I	(70)	197	203	566	588				
		688	727	860	901				
		1042	1133	1199	1298				
		1317	1355	1447	1467				
		1566	1618	1721	2262				
		2299	2379	2636	2677				
		2744	2783	2921	3034				
		3094	3097	3166	3170				
		3448	3454	3750	3964				
		4067	4123	4133	4157				
		4200	4207	4228	4319				
		4347	4474	4493	4614				
		4724	4859	4868	5230				
		5321	5512	5558	5679				
		5723	5800	5909	6008				
		6055	6229	6268	6278				
		6304	6342	6355	6381				
		6438	6697						
Afe I	(3)	923	2401	6628					
Afl II	(3)	35	1006	3284					
Afl III	(2)	3192	4274						
Age I	(2)	2240	2405						
Aha II	(10)	742	1398	1456	1675				
		5704	6086	6390	6573				
		6687	6708						
Ahd I	(4)	1020	3697	3743	5167				
Alu I	(37)	30	34	336	580				
		668	676	1631	2071				
		2392	2438	2471	2543				
		2576	2792	2840	2951				
		3125	3182	3279	3283				
		3587	3906	3939	4034				
		4098	4216	4442	4532				
		4578	4835	5356	5456				
		5519	6198	6217	6462				
		6818							
Alw I	(16)	453	1051	1357	2141				
		2152	2158	2913	3110				
		4836	4922	4922	5019				
		5020	5484	5799	5805				
AlwN I	(2)	3408	4690						
ApaL I	(4)	1758	4588	5834	6331				
Apo I	(2)	872	1404						
Asc I	(2)	368	3619						
Ase I	(5)	1866	3917	4045	4104				
		5339							
Asp718	(2)	401	3652						
Ava I	(10)	331	397	498	1491				
		1501	2207	2309	3174				
		3582	3648						
Ava II	(17)	186	199	254	551				
		690	1219	1480	1535				
		1568	1574	3074	3437				
		3450	3505	5305	5527				
		6782							
BamH I	(1)	2145							
Ban I	(17)	244	401	1142	1397				
		1583	2123	2168	2243				
		2453	3495	3652	4018				
		5115	6389	6572	6686				
		6707							
Ban II	(6)	338	351	3589	3602				
		6639	6653						
Bbe I	(5)	1401	6393	6576	6690				
		6711							
Bbs I	(2)	2040	2062						
Bbv I	(11)	931	939	1721	2669				
		2953	2960	4693	4696				
		4902	5596	6207					
Bbv II	(2)	2041	2061						
Bcn I	(23)	164	399	400	571				
		724	1503	1504	1540				
		1672	1683	1744	2045				
		2448	3102	3415	3650				
		3651	4655	5351	5702				
		6203	6238	6589					
Bfa I	(16)	31	219	661	673				
		1394	2072	2097	2248				
		2397	3152	3280	3470				
		4769	5022	5357	6792				
Bgl I	(3)	1718	5287	6405					
Bgl II	(1)	3148							
Bpm I	(5)	2862	3102	3217	5237				
		6855							
Bsa I	(6)	476	530	1149	3705				
		3726							
		1905							
BsaA I	(2)	1905							
BsaB I	(1)	2150							
BsaH I	(10)	742	1398	1456	1675				
		5704	6086	6390	6573				
		6687	6708						
BsaJ I	(41)	161	240	250	397				
		461	497	546	547				
		694	733	734	746				
		747	1167	1236	1245				
		1265	1266	1411	1501				
		1597	1603	1713	1771				
		2310	2416	2446	2586				
		2749	2773	2828	3412				
		3491	3501	3648	3711				
		4013	4434	6508	6586				
		6592							
BsaW I	(8)	1436	2148	2165	2240				
		2405	4480	4627	5458				
BseR I	(6)	464	1293	1332	1788				
		2448	3714						
Bsg I	(4)	2358	2546	2643	2967				
BsiE I	(13)	592	727	1471	1487				
		1747	2161	2410	3170				
		4190	4614	5537	5686				
		6433							
BsiHKA I	(9)	338	1444	1762	3027				
		3589	4592	5753	5838				
		6335							
BsmA I	(20)	107	475	531	609				
		734	832	949	1073				
		1132	1150	1328	3234				
		3357	3704	3725	5229				
		6003	6156	6200	6872				
BsmB I	(7)	733	831	1072	1131				
		1329	6157	6199					
BsmF I	(13)	172	185	564	729				
		764	1205	1518	1554				
		1686	2189	3423	3436				
		6568							
BsoF I	(39)	727	901	917	920				
		925	928	1133	1619				
		1710	2379	2577	2636				
		2658	2942	2949	3000				
		3003	3097	3167	3170				
		4099	4180	4198	4201				
		4319	4474	4617	4682				
		4685	4891	5219	5558				
		5585	5680	5909	6196				
		6305	6409	6482					
Bspl286 I	(1)	3027							
BspH I	(4)	4994	6002	6107	6631				
BspM II	(1)	2148							
Bsr I	(18)	374	1030	1058	1427				
		2275	2296	3030	3625				
		4075	4681	4694	4808				
		5214	5332	5375	5642				
		5814	6520						
BsrB I	(5)	1042	1467	3966	4207				
		6008							
BsrD I	(2)	5228	5402						
BsrG I	(1)	1282							
BssH II	(5)	317	368	1449	3568				
		3619							
BssS I	(4)	2598	4447	5831	6138				
BstE II	(1)	1087							
BstN I	(26)	241	548	735	748				
		1169	1194	1217	1237				
		1267	1572	1578	1599				
		1604	1623	2463	2588				
		2700	2775	2829					

Csp6 I	(12)	402 1895 3653	658 2290 5646	1283 2846 6322	1634 3128 6833		3572 4058 4454	3621 4123 4521	3623 4151 4621	3898 4184 4795	
Dde I	(21)	75 781 3021 3459 4958 6325	167 1018 3039 3728 5124	208 1290 3324 3799 5664	476 1784 3418 4549 6090		4904 6059 6413 6689	5297 6159 6546 6710	5390 6262 6575	5727 6392 6629	
Dpn I	(29)	94 1363 2160 3150 4928 5131 5794 6656	459 1701 2919 3344 4936 5472 5811	1046 2147 3067 4842 5014 5490 5847	1178 2153 3105 4917 5026 5536 6432		HinC II (2) Hind II (2) HinD III (1) Hinf I (15)	1423 1423 3180 442	3162 3162 450 791	802 3831 4249	
DpnII	(29)	92 1361 2158 3148 4926 5129 5792 6654	457 1699 2917 3342 4934 5470 5809	1044 2145 3065 4840 5012 5488 5845	1176 2151 3103 4915 5024 5534 6430		HinI I (10) HinP I (46)	742 5704 6687 317 646 1449 1736 2705 3570	1398 6086 6708 319 903 1451 2188 2746 3619	1456 6390 6573 370 1398 1616 2400 3568 3896	
Dra I	(6)	1791 5052	1947 5744	1960	5033		4452 4902 6057 6411 6687	4519 5295 6157 6544 6708	4619 5388 6260 6573	4793 5725 6390 6627	
Dra III	(1)	1766									
Drd I	(2)	4382	6251								
Dsa I	(5)	694 6592	1411	1713	2416		Hpa II (45)	163 723 1487 1587 1743 2166 2509 3649 4654	398 1401 1502 1670 1747 2241 2569 3992 4844	569 1437 1528 1681 2043 2406 3100 4481 5248	630 1462 1538 1686 2149 2446 3414 4628 5282
Eae I	(15)	582 1414 2489 5555	724 1687 2878 6589	1109 1744 3167 6721	1130 1768 4113		5349 6236 6735	5459 6588	5701 6711	6202 6720	
Eag I	(3)	724	1744	3167							
Ear I	(6)	1070 5962	1311 6450	3896	4158		4654 5349 6236 6735	4844 5459 6588	5248 5701 6711	5282 6202 6720	
Eco47 III	(3)	923	2401	6628							
Eco57 I	(6)	2570 5835	2616 6839	2813	4821						
EcoN I	(3)	784	1392	2251			Hph I (19)	1157 2431 2917 5860 6679	1183 2436 5011 5893 6724	1401 2764 5238 6177 6805	1437 2788 5652 6186
EcoO109 I	(6)	254 6143	1219 6597	1798	3505						
EcoR I	(1)	1404									
EcoR II	(26)	239 1167 1265 1602 2698 4012 6507	546 1192 1570 1621 2773 4300 6784	733 1215 1576 2461 2827 4421	746 1235 1597 2586 3490 4434		Kas I (5) Kpn I (2) Mae I (16)	1397 6707 405 31 1394 2397 4769	6389 6572 3656 219 2072 3152 5022	6572 6686 661 673 2097 3280 5357	6686 673 2248 3470 6792
EcoR V	(3)	140	3390	6775							
Ehe I	(5)	1399 6709	6391	6574	6688		Mae II (17)	742 1546 2482 4977 6528	1081 1904 2695 5393	1122 1909 2866 5766	1456 2355 3187 6086
Fnu4H I	(39)	727 925 1710 2658 3003 4099 4319 4685 5585 6305	901 928 2379 2942 3097 4180 4474 4891 5680 6409	917 1133 2577 2949 3167 4198 4617 5219 5909 6482	920 1619 2636 3000 3170 4201 4682 5558 6196		Mae III (24)	39 1231 2600 3766 5092 5822	994 1547 3089 4630 5423 6210	1022 1905 3188 4693 5481 6501	1087 1984 3288 4809 5634 6521
Fok I	(11)	423 2811 5601	1140 3673 6244	1300 5133 6488	2445 5314		Mbo I (29)	92 1361 2158 3148 4926 5129 5792 6654	457 1699 2917 3342 4934 5470 5809	1044 2145 3065 4840 5012 5488 5845	1176 2151 3103 4915 5024 5534 6430
Fse I	(1)	1689									
Fsp I	(2)	5389	6412								
Gdi II	(15)	723 1743 2877 5554	725 1745 3166 6590	1129 1767 3168 6722	1688 2490 4114		Mbo II (17)	1086 2661 3912 5763 6650	1299 2706 4146 5841	2041 2709 4935 5950	2066 2902 5008 6438
Gsu I	(5)	2861 6856	3101	3218	5238						
Hae I	(8)	584 3156	1111 4289	1416 4300	1602 4752		Mlu I (1)	3192			
Hae II	(10)	925 4522 6690	1401 6393 6711	2403 6576	4152 6630		Mme I (7)	829 3765	1106 4488	1628 4672	3713
Hae III	(39)	129 762 1132 1621 1770 2880 3379 4300 5290 6591	173 774 1197 1685 1800 2992 3424 4318 5557 6599	584 987 1416 1689 2491 3156 4115 4752 6144 6723	726 1111 1602 1746 2591 3169 4289 5210 6442		Mnl I (59)	167 432 510 1168 1313 1367 1643 2216 2513 2807 3619 3734 4382 5187 6192	216 460 566 1271 1319 1374 1687 2305 2606 2927 3638 3794 4455 5333	368 484 776 1304 1349 1390 1766 2426 2744 3182 3683 4172 6736	387 506 872 1310 1352 1508 1789 2507 2756 3467 3710 4172 6134
Hga I	(11)	381 3171 5694	642 3632 6252	895 4384 6721	1682 4962		Msc I (3)	584			
HgiA I	(9)	338 3589 6335	1444 4592	1762 5753	3027 5838		Mse I (31)	36 1173 1959 3198 3917 5032 5339	1007 1790 2086 3202 4045 5037 5378	1119 1866 3140 3285 4104 5051 5743	1149 1946 3144 3819 4980 5104 6115
HgiE II	(3)	1484	4853	6333							
Hha I	(46)	319 648 1451 1738 2707	321 905 1453 2190 2748	370 924 1566 2262 3064	372 1400 1618 2402 3570						

		6296	6493	6763		1604	1623	1671	1682		
Msl I	(3)	2904	5419	5578		1743	2044	2447	2463		
Msp I	(45)	163	398	569	630	2588	2700	2775	2829		
		723	1401	1437	1462	3101	3414	3492	3649		
		1487	1502	1528	1538	3650	4014	4302	4423		
		1587	1670	1681	1686	4436	4654	5350	5701		
		1743	1747	2043	2149	6202	6237	6509	6588		
		2166	2241	2406	2446	6786					
		2509	2569	3100	3414						
		3649	3992	4481	4628	Sec I	(41)	161	240	250	397
		4654	4844	5248	5282			461	497	546	547
		5349	5459	5701	6202			694	733	734	746
		6236	6588	6711	6720			747	1167	1236	1245
		6735						1265	1266	1411	1501
MspAl I	(10)	588	2392	3750	4098			1597	1603	1713	1771
		4616	4861	5802	6268			2310	2416	2446	2586
		6462	6818					2749	2773	2828	3412
Mun I	(1)	2233						3491	3501	3648	3711
Nae I	(4)	631	1687	1748	6721			4013	4434	6508	6586
Nar I	(5)	1398	6390	6573	6687	SfaN I	(20)	6592			
		6708						185	444	641	938
Nci I	(23)	163	398	399	570			2517	2793	2808	2907
		723	1502	1503	1539			3436	3694	4370	5422
		1671	1682	1743	2044			5615	5862	6223	6315
		2447	3101	3414	3649			6353	6391	6707	6719
		3650	4654	5350	5701	Sfc I	(9)	15	917	925	1101
		6202	6237	6588				3264	4539	4730	5408
								6826			
Nco I	(2)	1411	2416			Sma I	(3)	399	1503	3650	
Nde I	(2)	1974	6338			SnaB I	(1)	3188			
Ngom I	(4)	629	1685	1746	6719	Spe I	(1)	660			
Nhe I	(2)	30	3279			Sph I	(1)	6562			
Nla III	(25)	62	1205	1415	1694	Ssp I	(2)	3817	5971		
		1813	2420	2654	2684	Stu I	(1)	3156			
		2879	3074	3119	3311	Sty I	(7)	250	461	1245	1411
		3765	3932	4278	4998			2416	3501	3711	
		5489	5499	5577	5613	Taq I	(18)	794	1038	1349	1360
		6006	6111	6195	6562			1471	2001	2051	2467
								2761	2788	2803	2932
Nla IV	(37)	188	201	246	403			3135	3161	3175	3812
		521	552	692	761			4374	5818		
		893	1144	1221	1399	Tfi I	(6)	442	802	1813	3852
		1585	2125	2147	2170			4109	4249		
		2245	2297	2455	2993	Tsp45 I	(10)	1022	1231	1547	1905
		3439	3452	3497	3654			2600	3089	5423	5634
		4020	4306	4345	5117			6210	6521		
		5211	5252	5463	6053	Tth111 I	(4)	390	811	1217	3641
		6391	6574	6598	6688	Tth111 II	(9)	146	422	613	632
		6709						2900	3396	4863	4872
Not I	(1)	3167						4902			
Nsp7524 I	(3)	4274	6191	6558		Vsp I	(5)	1866	3917	4045	4104
NspB II	(10)	588	2392	3750	4098			5339			
		4616	4861	5802	6268	Xba I	(2)	218	3469		
		6462	6818			Xho I	(1)	3174			
NspH I	(3)	4278	6195	6562		Xho II	(10)	2145	2151	2917	3148
Pac I	(2)	3144	3202					4915	4926	5012	5024
PaeR7 I	(1)	3174						5792	5809		
Pal I	(39)	129	173	584	726	Xma I	(3)	397	1501	3648	
		762	774	987	1111	Xma III	(3)	724	1744	3167	
		1132	1197	1416	1602	Xmn I	(3)	3880	3918	5766	
		1621	1685	1689	1746						
		1770	1800	2491	2591						
		2880	2992	3156	3169						
		3379	3424	4115	4289						
		4300	4318	4752	5210						
		5290	5557	6144	6442						
		6591	6599	6723							
Ple I	(4)	799	2137	3817	4653						
Pme I	(1)	1791									
PpuM I	(3)	254	1219	3505							
Psp1406 I	(3)	2355	5393	5766							
PspA I	(3)	397	1501	3648							
Pst I	(3)	921	929	1105							
Pvu I	(3)	2161	5537	6433							
Pvu II	(4)	2392	4098	6462	6818						
Rsa I	(12)	403	659	1284	1635						
		1896	2291	2847	3129						
		3654	5647	6323	6834						
Sac I	(2)	338	3589								
Sal I	(1)	3160									
Sap I	(2)	3896	4158								
Sau3A I	(29)	92	457	1044	1176						
		1361	1699	2145	2151						
		2158	2917	3065	3103						
		3148	3342	4840	4915						
		4926	4934	5012	5024						
		5129	5470	5488	5534						
		5792	5809	5845	6430						
		6654									
Sau96 I	(34)	127	171	186	199						
		254	551	690	760						
		773	985	1196	1219						
		1480	1535	1568	1574						
		1683	1798	2590	2991						
		3074	3377	3422	3437						
		3450	3505	5209	5288						
		5305	5527	6143	6440						
		6597	6782								
Sca I	(1)	5647									
ScrF I	(49)	163	241	398	399						
		548	570	723	735						
		748	1169	1194	1217						
		1237	1267	1502	1503						
		1539	1572	1578	1599						

Site usage in pU6CGR:

Aat II	G,ACGT`C	3	Acc I	GT`MK,AC	1
Acc65 I	G`GTAC,C	2	Aci I	C`CG,C	70
Afe I	AGC GCT	3	Afl II	C`TTAA,G	3
Afl III	A`CRYGT	2	Age I	A`CCGG,T	2
Aha II	GR`CG,YC	10	Ahd I	GACNN,N`NNGTC	4
Alu I	AG CT	37	Alw I	GGATC 8/9	16
AlwN I	CAG,NNN`CTG	2	Apa I	G,GGCC,C	-
Apal I	G`TGCA,C	4	Apo I	R`AATT,Y	2
Asc I	GG`CGCG,CC	2	Ase I	AT`TA,AT	5
Asp718	G`GTAC,C	2	Ava I	C`YCGR,G	10
Ava II	G`GWC,C	17	Avr II	C`CTAG,G	-
BamH I	G`GATC,C	1	Ban I	G`GYRC,C	17
Ban II	G,GGCY`C	6	Bbe I	G,CGCC`C	5
Bbs I	GAAGAC 8/12	2	Bbv I	GCGAC 13/17	11
Bbv II	GAAGAC 7/11	2	Bcl I	T`GATC,A	-
Bcn I	CC,S`GG	23	Bfa I	C`TA,G	16
Bgl I	GCCN,NNN`NGGC	3	Bgl II	A`GATC,T	1
Blp I	GC`TNA,GC	-	Bpm I	CTGGAG 22/20	5
Bsa I	GGTCTC 7/11	6	BsaA I	YAC GTR	2
BsaB I	GATNN NNATC	1	BsaH I	GR`CG,YC	10
BsaJ I	C`CNNG,G	41	BsaW I	W`CCGG,W	8
BseR I	GAGGAG 16/14	6	Bsg I	GTGCAG 22/20	4
BsiC I	TT`CG,AA	-	Bsie I	CG,RY`CG	13
BsiHKA I	G,WGWC`C	9	BsiW I	C`GTAC,G	-
Bsm I	GAATG,C 7	-	BsmA I	GTCCTC`/9	20
BsmB I	CGTCTC 7/11	7	BsmF I	GGGAC 15/19	13
BsoF I	GC`N,GC	39	Bsp120 I	G`GGCC,C	-
Bsp1286 I	G,DGCH`C	1	BspH I	T`CATG,A	4
BspM I	ACCTGC 10/14	-	BspM II	T`CCGG,A	1
Bsr I	ACT,GG`	18	BsrB I	GAG CGG	5
BsrD I	GCAATG, 8	2	BsrG I	T`GTAC,A	1
BssH II	G`CGCG,C	5	BssS I	C`TCGT,G	4
Bst1107 I	GTA TAC	-	BstB I	TT`CG,AA	-
BstE II	G`GTNAC,C	1	BstN I	CC`W,GG	26
BstU I	CG CG	30	BstX I	CCAN,NNNN`NTGG	-
BstY I	R`GATC,Y	10	Bsu36 I	CC`TNA,GG	2
Cac8 I	GCN NGC	39	Cfr10 I	R`COGG,Y	11
Cla I	AT`CG,AT	1	Csp6 I	G`TA,C	12
Dde I	C`TNA,G	21	Dpn I	GA TC	29
DpnII	`GATC,	29	Dra I	TTT AAA	6
Dra III	CAC,NNN`GTG	1	Drd I	GACNN,NN`NNGTC	2

Dsa I	C`CRYG,G	5	Eae I	Y`GGCC,R	15	Nla IV	GGN NCC	37	Not I	GC`GGCC,GC	1
Eag I	C`GGCC,G	3	Ear I	CTCTC 7/10	6	Nru I	TCG CGA	-	Nsi I	A,TGCA`T	-
Eco47 III	AGC GCT	3	Eco57 I	CTGAAG 21/19	6	Nsp7524 I	R`CATG,Y	3	NspB II	CMG CKG	10
Eco72 I	CAC GTG	-	EcoN I	CCTNN`N,NNAGG	3	NspH I	R,CATG`Y	3	Pac I	TTA,AT`TAA	2
EcoO109 I	RG`GNC,CY	6	EcoR I	G`AATT,C	1	PaeR7 I	C`TCGA,G	1	Pal I	GG CC	39
EcoR II	`CCWGG,	26	EcoR V	GAT ATC	3	Pf1M I	CCAN,NNN`NTGG	-	Ple I	GAGTC 9/10	4
Ehe I	GGC GCC	5	Esp I	GC`TNA,GC	-	Pme I	CTTT AAAC	1	Pml I	CAC GTG	-
Fnu4H I	GC`N,GC	39	Fok I	GGATG 14/18	11	PpuM I	RG`GWC,CY	3	Psp1406 I	AA`CG,TT	3
Fse I	GG,CCGG`CC	1	Fsp I	TGC GCA	2	PspA I	C`CCGG,G	3	Pst I	C,TGCA`G	3
Gdi II	`YGCC,CG	15	Gsu I	CTGGAG 21/19	5	Pvu I	CG,AT`CG	3	Pvu II	CAG CTG	4
Hae I	WGG CCW	8	Hae II	R,GCGC`Y	10	Rsa I	GT AC	12	Rsr II	CG`GWC,CG	-
Hae III	GG CC	39	Hga I	GACGC 9/14	11	Sac I	G,AGCT`C	2	Sac II	CC,GC`GG	-
HgiA I	G,WGCW`C	9	HgiE II	ACCNNNNNNGGT -1/133	1	Sal I	G`TCGA,C	1	Sap I	GCTCTTC 8/11	2
Hha I	G,CG`C	46	HinC II	GTY RAC	2	Sau3A I	`GATC,	29	Sau96 I	G`GNC,C	34
Hind II	GTY RAC	2	Hind III	A`AGCT,T	1	Sca I	AGT ACT	1	ScrF I	CC`N,GG	49
Hinf I	G`ANT,C	15	HinI I	GR`CG,YC	10	Sec I	C`CNNG,G	41	SfaN I	GGATC 9/13	20
HinP I	G`CG,C	46	Hpa I	GTT AAC	-	Sfc I	C`TRYA,G	9	Sfi I	GGCCN,NNN`NGGCC	-
Hpa II	C`CG,G	45	Hph I	GGTGA 12/11	19	Sma I	CCC GGG	3	SnaB I	TAC GTA	1
Kas I	G`GCGC,C	5	Kpn I	G,GTAC`C	2	Spe I	A`CTAG,T	1	Sph I	G,CATG`C	1
Mae I	C`TA,G	16	Mae II	A`CG,T	17	Spl I	C`GTAC,G	-	Srf I	GCCC GGGC	-
Mae III	`GTNAC,	24	Mbo I	`GATC,	29	Ssp I	AAT ATT	2	Stu I	AGG CCT	1
Mbo II	GAAGA 12/11	17	Mlu I	A`CGCG,T	1	Sty I	C`CWWG,G	7	Swa I	ATTT AAAT	-
Mme I	TCCRAC 25/23	7	Mnl I	CCTC 10/10	59	Taq I	T`CG,A	18	Tfi I	G`AWT,C	6
Msc I	TGG CCA	3	Mse I	T`TA,A	31	Tsp45 I	`GTSAC,	10	Tth111 I	GACN`N,NGTC	4
Msl I	CAYNN NNRTG	3	Msp I	C`CG,G	45	Tth111 II	CAARCA 16/14	9	Vsp I	AT`TA,AT	5
MspAl I	CMG CKG	10	Mun I	C`AATT,G	1	Xba I	T`CTAG,A	2	Xca I	GTA TAC	-
Nae I	GCC GGC	4	Nar I	GG`CG,CC	5	Xcm I	CCANNNN,N`NNNNTGG-	-	Xho I	C`TCGA,G	1
Nci I	CC`s,GG	23	Nco I	C`CATG,G	2	Xho II	R`GATC,Y	10	Xma I	C`CCGG,G	3
Nde I	CA`TA,TG	2	Ngm I	G`CCGG,C	4	Xma III	C`GGCC,G	3	Xmn I	GAANN NNTTC	3
Nhe I	G`CTAG,C	2	Nla III	,CATG`	25						