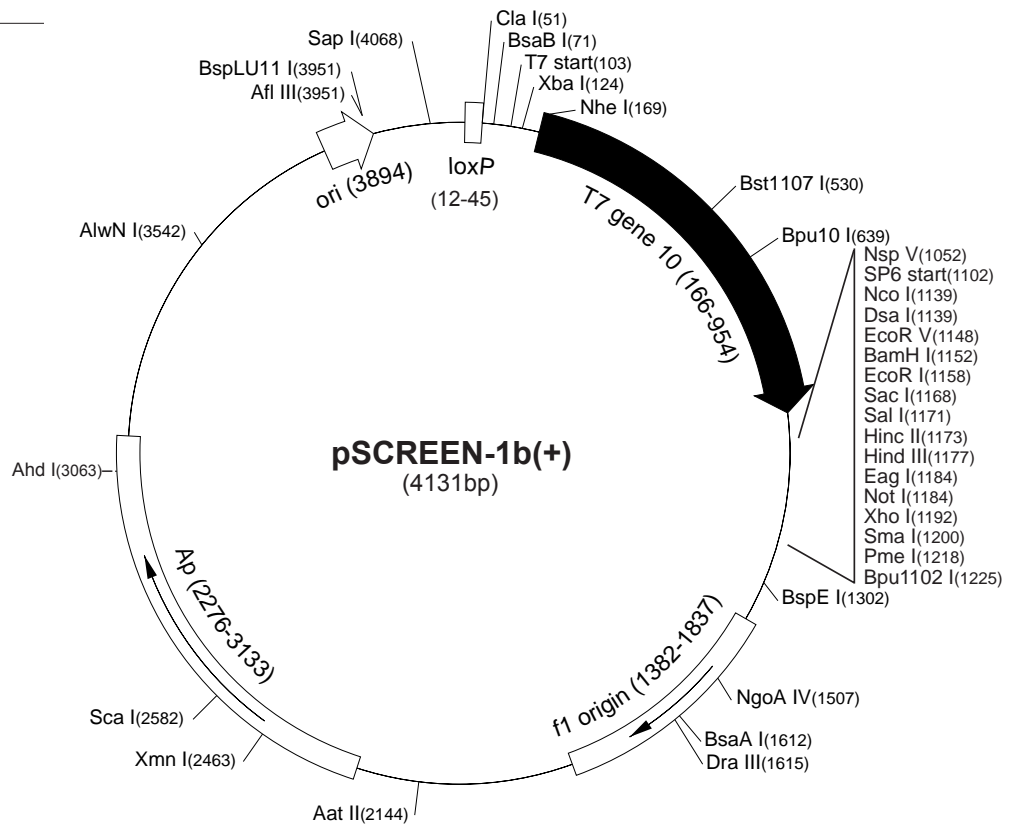


pSCREEN™-1b(+) Vector Map

pSCREEN-1b(+) is the plasmid product of *loxP*-cre mediated autosubcloning from the λ SCREEN-1 vector. The vector contains the T7 gene 10 260aa coding sequence, T7 transcription and translation signals, f1 origin of replication and high copy number pUC replication origin. pSCREEN-1b(+) also contains His•Tag® and S•Tag™ coding sequences and SP6 promoter immediately upstream from an expanded multiple cloning region. Unique sites are shown on the circle map below. The f1 origin is oriented so that infection with helper phage will produce virions containing single-stranded DNA that corresponds to the T7 RNA polymerase coding strand. Therefore, single-stranded sequencing should be performed using the T7 terminator primer (Cat. No. 69337-3).

pSCREEN-1b(+) sequence landmarks

<i>loxP</i> site	12-45
T7 promoter	86-102
T7 transcription start	103
T7 gene 10 coding seq.	166-954
His•Tag® coding sequence	979-996
S•Tag™ coding sequence	1030-1074
SP6 promoter	1085-1101
SP6 transcription start	1102
Multiple cloning region (<i>Nco</i> I- <i>Pme</i> I)	1139-1222
T7 terminator	1236-1283
f1 origin	1382-1837
<i>bla</i> coding sequence	2276-3133
pUC origin	3894



T7 promoter →

AGATCTCGATCCCGCAAATTAATACGACTACTATAGGGAGACCACAACGGTTTCCCTCTAGAAATAATTTTGTGTTAACTTTAAGAAGGAGA

← **Nhe I** **T7•Tag** **Xba I** **rbs**

TATACATATGGCTAGCATGACTGGTGGACAGCAAAATGGGT...759bp...GGTGGCGGTGGTCTGATATGCACCATCATCATCTCTTCTGGTCTGGTGCCACCGGGTCTT
MetAlaSerMetThrGlyGlyGlnGlnMetGly...253aa...GlyGlyGlyGlySerAspMetHisHisHisHisHisSerSerGlyLeuValProArgGlySer

← **S•Tag** **Nsp V** **SP6 promoter** →

GGTATGAAAGAAACCGCTGCTGCTAAATTCGAACGCCAGCACATGGACAGCCAGATCTGCATTTAGGTGACACTATAGAATACCAAGATCTGGGTACCGACGACGACGACAAGGCC
GlyMetLysGluThrAlaAlaAlaLysPheGluArgGlnHisMetAspSerProAspLeuHisLeuGlyAspThrIleGluTyrGlnAspLeuGlyThrAspAspAspLysAla

← **Hinc II** **Eag I** **Not I** **Xho I** **Sma I** **Pme I** **Bpu1102 I**

ATGGCGATATCGGATCCGAATTCGAGCTCCGTCGACAAGCTTGGCGCCGACTCGAGCCCGGGTGAATGATTGAGTTTAAACCGCTGAGCAATAACTAGCATAACCCCTTGGGGCC
MetAlaIleSerAspProAsnSerSerValAspLysLeuAlaAlaAlaLeuGluProGlyIle

← **T7 terminator** **enterokinase** ↓

CTCTAAACGGGCTTTGAGGGGTTTTTTTG

← **T7 terminator primer #69337-3**

pSCREEN-1b(+) cloning/expression region

pSCREEN-1b(+) Restriction Sites

Enzyme	# Sites	Locations					
AatII	1	2144					
AccI	2	529		1172			
Acil	55						
AflIII	1	3951					
AhdI	1	3063					
AluI	16						
AlwI	14						
Alw26I	7	99	463	655	2026	2068	
		2221	2997				
AlwNI	1	3542					
ApaLI	3	1894	2391	3637			
ApoI	3	1048	1158	1806			
AvaI	2	1192		1198			
Avall	2	2699		2921			
BamHI	1	1152					
BanI	6	5	940	1008	1117	1571	
		3110					
BanII	3	1168	1199	1541			
BbvI	21						
BcgI	3	679	1162	2559			
BcgI'	3	713	1196	2525			
Bfal	8	59	125	170	1236	1459	
		2870	3205	3458			
BglI	2	1371		2945			
BglIII	3	66	1077	1110			
BpmI	3	248	315	2994			
Bpu10I	1	639					
Bpu1102I	1	1225					
BsaI	4	99	463	655	2997		
BsaAI	1	1612					
BsaBI	1	71					
BsaHI	2	2141	2523				
BsaJI	6	1	204	1139	1198	1247	
		3791					
BsaWI	5	943	1302	2767	3598	3745	
BsiEI	7	1187	1342	1581	2545	2694	
		3617	4041				
BsiHKAI	5	1168	1898	2395	2480	3641	
BsII	15						
BsmBI	2	2026	2068				
Bsp1286I	7	1168	1199	1541	1898	2395	
		2480	3641				
BspEI	1	1302					
BspLU11I	1	3951					
BsrI	11						
BsrBI	4	346	1468	2221	4022		
BsrDI	2	2829		3003			
BsrFI	3	592	1507	2978			
BssSI	4	737	2087	2394	3778		
Bst1107I	1	530					
BstYI	10	66	1077	1110	1152	2416	
		2433	3201	3213	3299	3310	
Cac8I	13						
Clal	1	51					
CviJI	64						
Ddel	16						
DpnI	22						
DraI	4	1218	2485	3177	3196		
DrallI	1	1615					
DrdI	3	1659	1980	3849			
Dsal	1	1139					
EaeI	3	1184	2670	4112			
EagI	1	1184					
EarI	3	1320	2264	4068			
Eco57I	2	2397	3409				
EcoO109I	2	1252	2083				
EcoRI	1	1158					
EcoRII	4	1310	3790	3803	3924		
EcoRV	1	1148					
FauI	7	84	1340	1404	1473	1956	
		1966	4111				

Enzyme	# Sites	Locations					
Fnu4HI	34						
FokI	5	580	1981	2624	2911	3092	
FspI	2	1361		2840			
HaeII	4	1457	1465	3711	4081		
HaeIII	16						
Hgal	6	505	1390	1973	2531	3261	
		3839					
Hhal	22						
HincII	1	1173					
HindIII	1	1177					
HinfI	10	92	547	813	1660	1682	
		3064	3581	3977	4052	4117	
HphI	14						
KpnI	3	9	944	1121			
MaeIII	15						
MbolI	9	989	1337	1473	2281	2390	
		2468	3223	3294	4085		
MnlI	25						
MseI	22						
MslI	4	1088	2292	2651	2810		
MspI	20						
MspA1I	8	335	928	1039	1224	1961	
		2427	3368	3613			
MwoI	22						
NciI	10	3	392	1199	1200	1991	
		2026	2527	2549	2878	3574	
NcoI	1	1139					
NdeI	2	164	1889				
NgoAIV	1	1507					
NheI	1	169					
NlaIII	13						
NlaIV	17						
NottI	1	1184					
Nspl	2	2038	3955				
NspV	1	1052					
PfIMI	2	1065	1113				
PleI	6	86	1668	1676	3072	3575	
		4060					
PmeI	1	1218					
Psp1406I	4	887	1825	2461	2834		
PvuI	2	1342		2694			
RcaI	3	2118	2223	3231			
RsaI	9	7	198	291	320	645	
		942	1119	1906	2582		
SacI	1	1168					
Sall	1	1171					
SapI	1	4068					
Sau3AI	22						
Sau96I	8	1252	1330	1618	2083	2699	
		2921	2938	3017			
Scal	1	2582					
ScrFI	14						
SfaNI	9	818	1833	1873	1909	2003	
		2362	2611	2802	3854		
Sfcl	6	98	1097	1389	2817	3495	
		3686					
SmaI	1	1200					
Sspl	3	1796	1820	2258			
StyI	3	204	1139	1247			
TaiI	15						
TaqI	13						
Tfil	4	547	813	3977	4117		
Thal	17						
Tsel	21						
Tsp45I	7	297	790	1090	1434	2014	
		2590	2801				
Tsp509I	11						
TspRI	9	830	2644	2671	3018	3123	
		3272	3543	3556	4062		
VspI	3	85	2888	4123			
XbaI	1	124					

Enzyme	# Sites	Locations			
XhoI	1	1192			
XmnI	1	2463			

Enzymes that do not cut pSCREEN-1b(+):

AflIII	Apal	AscI	AvrII	BbsI
BclI	BseRI	BsgI	BsmI	BsmFI
BspMI	BsrGI	BssHII	BstEII	BstXI
Bsu36I	Eco47III	EcoNI	FseI	HpaI
MluI	MscI	MunI	NarI	NruI
NsiI	Pacl	PinAI	PmlI	PshAI
Psp5II	PstI	PvuII	RsrII	SacII
SanDI	SexAI	SfiI	SgfI	SgrAI
SnaBI	SpeI	SphI	SrfI	Sse8387I
StuI	SunI	Swal	Tth111I	UbaEI
XcmI				