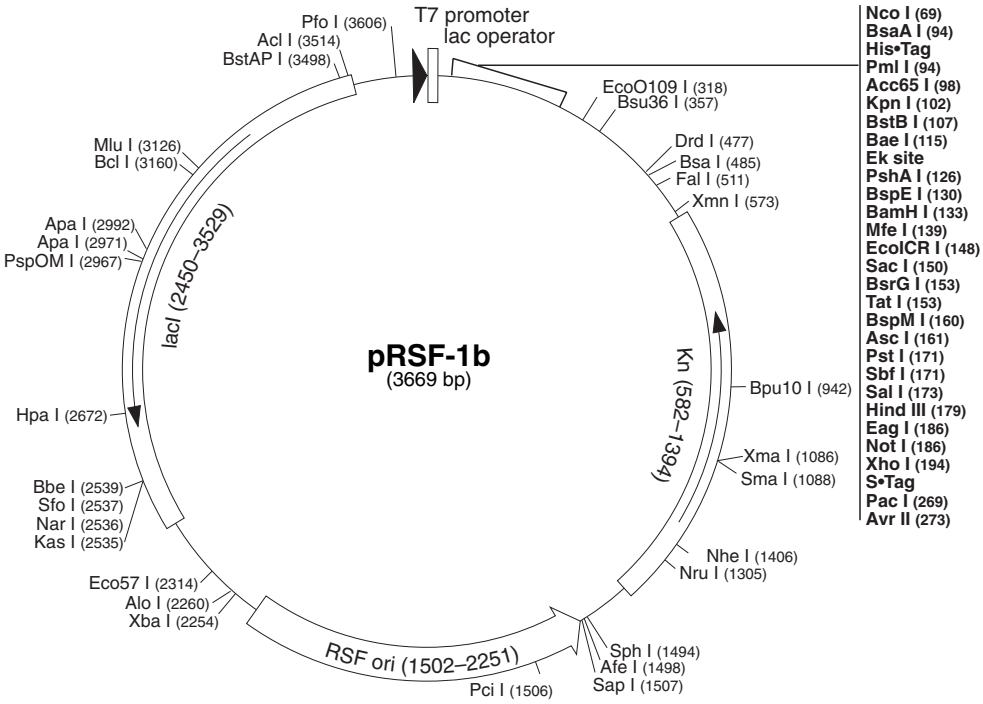
pRSF-1b Vector

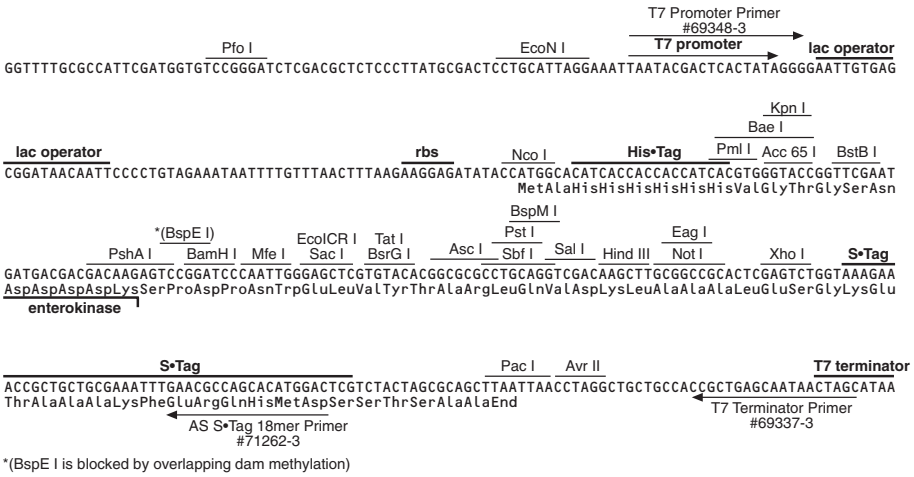
TB393 Rev A. 0404

	Cat. No.
pRSF-1b DNA	71363-3
pRSF-1b sequence landmarks	
T7 promoter	3653–3669
T7 transcription start	1
His•Tag® coding sequence	77–94
Multiple cloning sites (*Nco* I–*Avr* II)	69–278
S•Tag™ coding sequence	206–250
T7 terminator	302–349
kan (Kn^R) coding sequence	582–1394
RSF origin	1502–2251
lacI coding sequence	2450–3529

pRSF-1b carries a T7 promoter and *lac* operator to control transcription, a replication origin derived from RSF1030, and kanamycin antibiotic resistance (Kn^R). It also encodes an N-terminal His•Tag® sequence followed by an enterokinase (Ek) cleavage site and an optional C-terminal S•Tag™ sequence. Unique sites are shown on the circle map. pRSF-1b is compatible with pET vectors (ColE1 origin), pCDF vectors (CloDF13 replication origin), and pACYC derived plasmids (P15A replication origin) carrying compatible antibiotic resistance markers. Sequencing can be performed using the T7 Promoter Primer (Cat. No. 69348-3) and AS S•Tag 18mer Primer (Cat. No. 71262-3) or T7 Terminator Primer (Cat. No. 69337-3).

Note: the *Bsp*E I site is modified by *dam* methylation, so the plasmid must be grown in *dam*$^-$ hosts to use this site for cloning.





*(BspE I is blocked by overlapping dam methylation)

pRSF-1b cloning/expression region

pRSF-1b Restriction Sites

TB393 Rev A. 0404

Enzyme	# Sites	Locations				
Acc65I	1	98				
AccI	2	174	251			
AclI	1	3514				
AfeI	1	1498				
AflIII	2	1622	3174			
AgeI	2	101	406			
AloI	1	2260				
ApaI	1	2971				
ApaLI	2	1925	3194			
AscI	1	161				
AseI	5	572	761	2432	2491	3652
AvaI	2	194	1086			
AvrII	1	273				
BaeI	1	115				
BamHI	1	133				
BanI	4	98	2405	2535	3254	
BanII	3	150	1311	2971		
BbeI	1	2539				
BbsI	2	2689	3028			
BceAI	4	174	641	2690	3317	
BcgI	2	198	2854			
BciVI	4	568	1444	1814	2722	
BclI	1	3160				
BfrBI	2	848	1114			
BlpI	2	291	2149			
Bme1580I	3	1929	2971	3198		
BmrI	3	2376	3016	3253		
BpmI	2	2853	3342			
Bpu10I	1	942				
BpuEI	5	355	1702	2000	2180	2366
BsaAI	1	94				
BsaHI	2	2536	3219			
BsaI	1	485				
BsaWI	10	101	130	391	406	823
		1644	1817	1964	2352	2855
BsaXI	3	137	495	2506		
BseYI	3	1915	2640	2775		
BsgI	2	3129	3329			
BsiEI	6	189	476	964	1538	1951
		2395				
BsiHKAI	3	150	1929	3198		
BsmAI	7	485	942	1444	2559	2946
		3072	3477			
BsmBI	2	942	2559			
BsmI	2	1003	1080			
Bsp1286I	5	150	1311	1929	2971	3198
BspCNI	6	283	370	934	1899	2162
		2595				
BspEI	1	130				
BspHI	2	565	1442			
BspLU11I	1	1622				
BspMI	1	160				
BsrBI	4	13	563	1448	1555	
BsrDI	2	2767	3133			
BsrFI	4	101	406	1004	3488	
BsrGI	1	153				
BssHII	2	161	2763			
BssSI	2	149	1784			
BstAPI	1	3498				
BstBI	1	107				
BstEII	1	2992				
BstXI	3	3128	3251	3380		
BstYI	4	133	709	2398	3610	
Bsu36I	1	357				
BtgI	1	69				
BtsI	5	383	1016	1103	2447	2815
ClaI	1	1269				
DrdI	1	477				
EaeI	2	186	2500			
EagI	1	186				
EarI	5	1146	1402	1506	2282	3557
EciI	3	1673	1819	3389		

Enzyme	# Sites	Locations				
Ecl136II	1	148				
Eco57I	1	2314				
Eco57MI	3	2314	2853	3342		
EcoICRI	1	148				
EcoNI	2	1049	3642			
EcoO109I	1	318				
FalI	1	511				
HaeII	5	1500	1859	2539	2782	3563
HincII	3	175	2232	2672		
HindIII	1	179				
HpaI	1	2672				
KasI	1	2535				
KpnI	1	102				
MfeI	1	139				
MluI	1	3174				
MslI	3	2808	2838	3126		
NarI	1	2536				
NcoI	1	69				
NotI	1	186				
NruI	1	1305				
NsiI	2	850	1116			
NspI	2	1494	1626			
NspV	1	107				
PacI	1	269				
PciI	1	1622				
PflMI	4	94	241	702	3599	
PfoI	1	3606				
PinAI	2	101	406			
PmlI	1	94				
PshAI	1	126				
PspOMI	1	2967				
PstI	1	171				
PvuII	2	2485	2578			
SacI	1	150				
SalI	1	173				
SapI	1	1506				
SbfI	1	171				
SfcI	3	29	167	3665		
SfoI	1	2537				
SmaI	1	1088				
SmlI	6	194	334	1717	1979	2159
		2381				
SphI	1	1494				
Sse8387I	1	171				
SspI	2	1037	1411			
StyI	4	69	273	313	2127	
TaqII	4	710	1524	2208	2381	
TatI	1	153				
TspGWI	3	1143	1155	2236		
Tth111I	2	477	2049			
XbaI	1	2254				
XcmI	3	2789	2807	3323		
XhoI	1	194				
XmaI	1	1086				
XmnI	1	573				

Enzymes that do not cut pRSF-1b:

AarI	AatII	AflII	AhdI	AleI
AlwNI	AsiSI	BbvCI	BglI	BglII
BmgBI	BmtI	BplI	BsaBI	BseRI
BsiWI	BsmFI	Bst1107I	BstZ17I	BtrI
DraI	DraIII	EcoRI	EcoRV	FseI
FspAI	FspI	MscI	NaeI	NdeI
NgoMIV	NheI	PmeI	PpiI	PpuMI
PsiI	PsrI	PvuI	RsrII	SacII
SanDI	ScaI	SexAI	SfiI	SgrAI
SnaBI	SpeI	SrfI	StuI	SwaI
ZraI				