pTriEx™-1.1 Vector

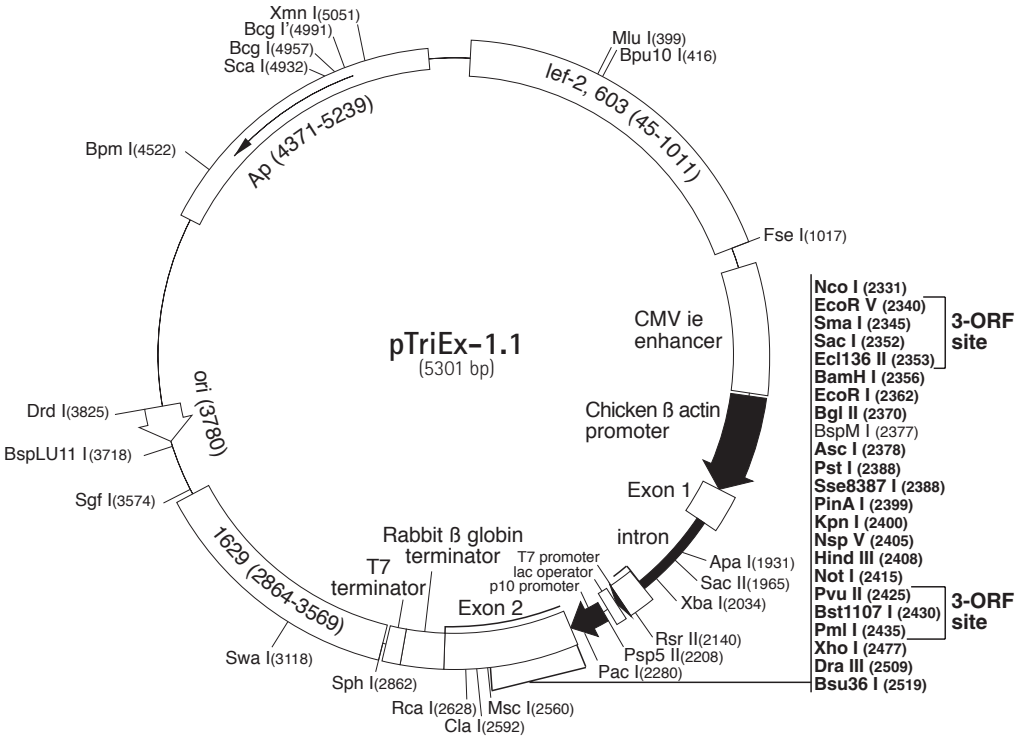
TB280 0607

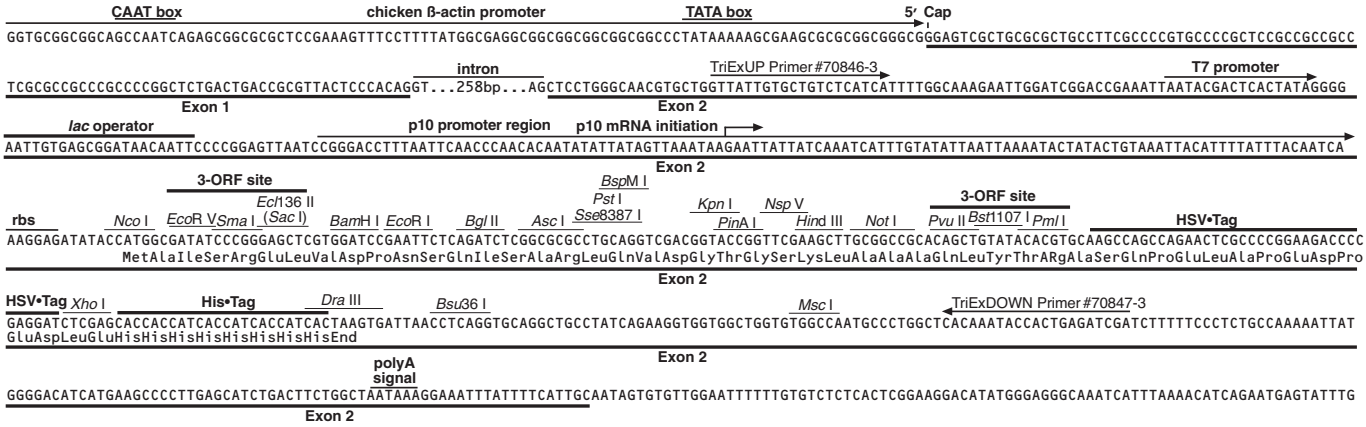
	Cat No.
pTriEx-1.1 Vector DNA	70840-3

pTriEx-1.1 sequence landmarks	
CMV ie enhancer region	1079–1443
Chicken actin promoter region	1449–1726
Vertebrate transcription start	1727
T7 promoter	2150–2166
T7 transcription start	2167
lac operator	2171–2191
p10 promoter region	2205–2318
p10 transcription start	2249–2250
Multiple cloning sites (*Nco* I–*Dra* III)	2331–2512
HSV•Tag® coding sequence	2441–2476
His•Tag® coding sequence	2483–2506
Rabbit globin terminator region	2594–2800
T7 terminator	2804–2851
pUC origin	3780
bla coding sequence	4371–5239

The pTriEx™-1.1 vector[1] (cat. no. 70840-3)is uniquely designed to allow rapid characterization of target genes in multiple expression systems. With this vector a single recombinant plasmid can be used to test expression in *E. coli*, insect and vertebrate cells. Transient vertebrate expression is mediated by a hybrid promoter composed of the CMV immediate early enhancer fused to the chicken β-actin promoter. For expression in insect cells, pTriEx-1.1 contains flanking baculovirus sequences to permit the generation of recombinant baculoviruses using the BacVector™ System. In baculovirus-infected insect cells, expression is driven by the very late p10 promoter. Expression in *E. coli* is regulated by the tightly controlled T7*lac* promoter. Expression can be induced in hosts such as NovaBlue by infecting with λCE6, a phage that constitutively expresses T7 RNA polymerase from the λp_L and λp_I promoters. Alternatively, pTriEx recombinant plasmids can be transferred into a (DE3)pLacI host that allows IPTG based induction.

[1] US Patent 6,589,783





pTriEx-1.1 cloning/expression regions

pTriEx™-1.1 Restriction Sites

TB280 0607

Enzyme	# Sites	Locations				
AatII	4	1204	1257	1340	3309	
AccI	3	244	2391	2429		
AciI	64					
AflIII	5	399	2432	3379	3529	3718
AhdI	2	499	4452			
AluI	18					
AlwI	11					
Alw26I	7	285	949	1019	2116	2714
		4513	5289			
AlwNI	2	2084	4133			
ApaI	1	1931				
ApaLI	2	4031	5119			
ApoI	11					
AscI	1	2378				
AvaI	4	1951	2343	2468	2477	
AvaII	5	2140	2208	2937	4590	4812
BamHI	1	2356				
BanI	2	2396	4400			
BanII	4	1460	1920	1931	2352	
BbsI	3	498	2469	3487		
BbvI	19					
BcgI	1	4957				
BcgI'	1	4991				
BfaI	9	491	804	1079	2035	2804
		2988	3258	4212	4642	
BglI	4	1169	1291	1362	4572	
BglII	1	2370				
BpmI	1	4522				
Bpu10I	1	416				
BsaI	2	285	4513			
BsaAI	3	1419	2435	3028		
BsaHI	7	495	1201	1254	1337	3306
		3506	4989			
BsaJI	12					
BsaWI	5	833	2399	3923	4070	4743
BsgI	2	1560	2545			
BsiEI	7	1018	2418	3574	3634	4057
		4822	4971			
BsiHKAI	5	2352	2484	4035	5038	5123
BsiI	10	264	1128	1937	1985	2829
		3195	3740	3758	3923	4202
BsmBI	2	949	1019			
BsmFI	8	1254	1405	1844	1983	2002
		2221	2636	3434		
Bsp1286I	9	1460	1758	1920	1931	2352
		2484	4035	5038	5123	
BspLU11I	1	3718				
BspMI	1	2377				
BsrI	12					
BsrBI	6	1647	1761	1824	1947	2179
		3651				
BsrDI	4	79	2679	4513	4687	
BsrFI	6	42	781	1013	2025	2399
		4532				
BsrGI	3	49	768	3358		
BssHII	6	1570	1572	1650	1713	1736
		2378				
BssSI	3	2351	3890	5116		
Bst1107I	1	2430				
BstXI	2	167	2568			
BstYI	7	2356	2370	2473	4358	4369
		5077	5094			
Bsu36I	1	2519				
Cac8I	26					
ClaI	1	2592				
CviJI	76					
DdeI	8	416	2367	2506	2519	2586
		3992	4409	4949		
DpnI	19					
DraI	4	429	2748	3118	5029	
DraIII	1	2509				
DrdI	1	3825				

Enzyme	# Sites	Locations				
DsaI	2	1962	2331			
EaeI	5	1011	1015	2415	2558	4840
EagI	2	1015	2415			
EarI	3	51	547	5247		
Ecl136II	1	2350				
Eco47III	2	1862	2986			
Eco57I	2	4265	5119			
EcoO109I	4	1927	1928	2208	2820	
EcoRI	1	2362				
EcoRII	9	1167	1360	1576	2083	2567
		2887	3744	3864	3877	
EcoRV	1	2340				
FauI	18					
Fnu4HI	41					
FokI	3	4418	4599	4886		
FseI	1	1017				
FspI	2	659	4674			
HaeII	3	1864	2988	3965		
HaeIII	18					
HgaI	9	146	503	966	1036	2928
		3088	3514	3828	4978	
HhaI	27					
HincII	2	245	2392			
HindIII	1	2408				
HinfI	9	156	446	1728	2156	2991
		3367	3693	4088	4447	
HphI	10	183	879	1465	1831	2483
		2489	4522	4938	5144	5179
KpnI	1	2400				
MaeIII	14					
MboII	14					
MluI	1	399				
MnlI	30					
MscI	1	2560				
MseI	37					
MslI	6	950	2056	2757	4704	4863
		5222				
MspI	22					
MspA1I	6	655	1964	2425	4059	4304
		5087				
MunI	2	3017	3362			
MwoI	27					
NciI	10	1789	1922	2194	2206	2344
		2345	2459	4097	4635	4986
NcoI	1	2331				
NdeI	4	1313	2728	2788	2796	
NgoAIV	2	781	1013			
NlaIII	15					
NlaIV	12					
NotI	1	2415				
NsiI	2	184	1445			
NspI	2	2862	3722			
NspV	1	2405				
PacI	1	2280				
PinAI	1	2399				
PleI	6	150	1736	2150	3361	4096
		4441				
PmlI	1	2435				
Psp1406I	2	4678	5051			
Psp5II	1	2208				
PstI	1	2388				
PvuI	2	3574	4822			
PvuII	1	2425				
RcaI	1	2628				
RsaI	14					
RsrII	1	2140				
SacI	1	2352				
SacII	1	1965				
SalI	2	243	2390			
Sau3AI	19					
Sau96I	14					
ScaI	1	4932				

Enzyme	# Sites	Locations				
ScrFI	19					
SfaNI	7	14	191	2653	3814	4708
		4899	5148			
SfcI	6	2076	2162	2384	3982	4173
		4693				
SgfI	1	3574				
SmaI	1	2345				
SnaBI	2	1419	3028			
SphI	1	2862				
Sse8387I	1	2388				
SspI	4	425	3122	3319	5256	
StyI	2	2331	2815			
SwaI	1	3118				
TaiI	16					
TaqI	12					
TfiI	3	446	2991	3693		
ThaI	20					
TseI	19					
Tsp45I	3	2021	4708	4919		
Tsp509I	40					
TspRI	10	690	2590	2939	3352	4125
		4138	4400	4505	4852	4879
VspI	5	1086	2149	2276	3513	4624
XbaI	1	2034				
XhoI	1	2477				
XmnI	1	5051				

Enzymes that do not cut pTriEx-1.1:

AflII	AvrII	BclI	Bpu1102I		BsaBI	BseRI
		BsmI	BspEI	BstEII	EcoNI	EheI
		HpaI	NarI	NheI	NruI	PflMI
		PmeI	PshAI	SanDI	SapI	SexAI
		SfiI	SgrAI	SpeI	SrfI	StuI
		SunI	Tth111I	UbaEI	XcmI	