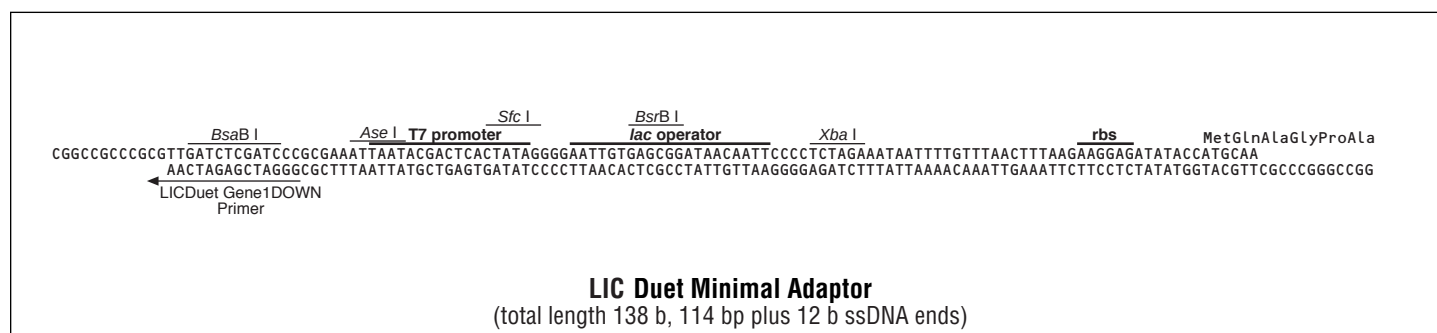
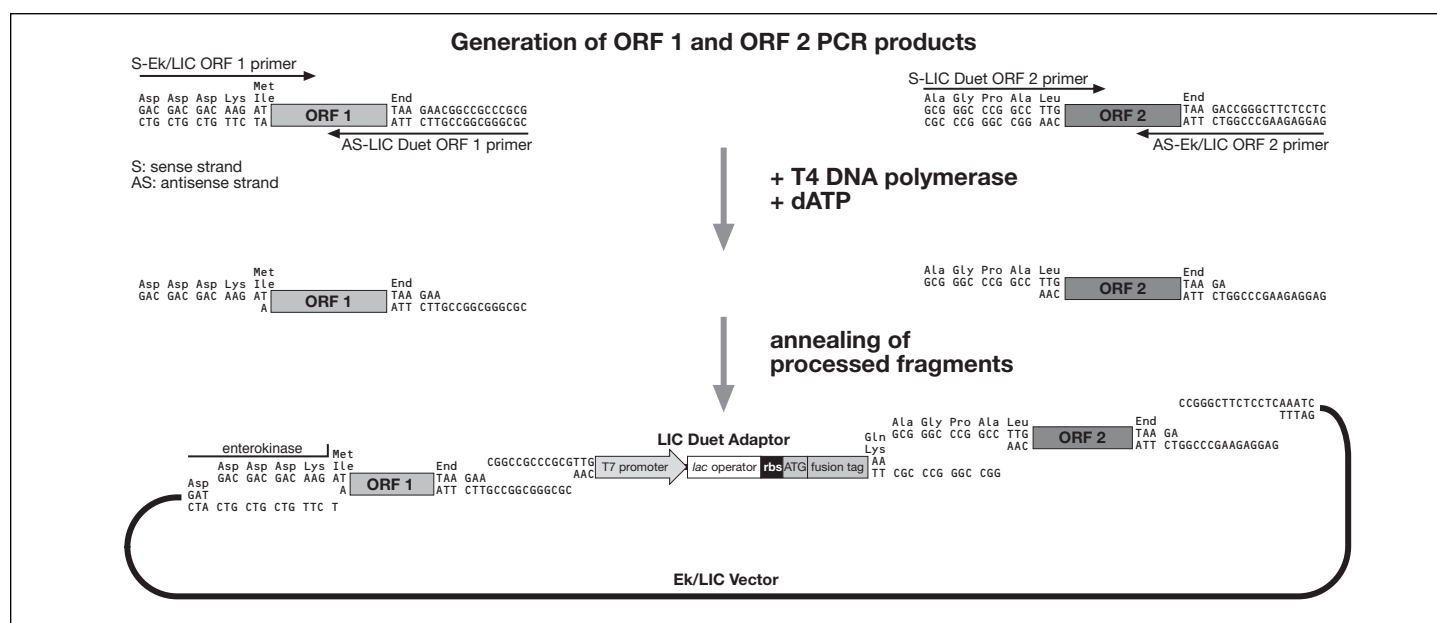


	Cat. No.
LIC Duet Minimal Adaptor	71362-3
LIC Duet Minimal Adaptor sequence landmarks	
T7 promoter	34–50
<i>lac</i> operator	55–75
T7 transcription start	51
ATG start codon	121–123

The LIC Duet™ Adaptors are designed to facilitate the efficient, simultaneous cloning of two protein coding sequences (ORFs) into an *E. coli* Ek/LIC vector without the need for restriction digestion or ligation. The adaptor possesses asymmetric, GC-rich 12-base overhangs on each end. One end anneals to the region encoding the C-terminus of ORF-1 and the other end anneals to the region encoding the N-terminus of ORF-2. The inserts are created using specifically designed primers for amplification, followed by a post-PCR processing step to create 12-base overhangs compatible with the adaptor (diagram below, see also TB384 LIC Duet Adaptor Kits).

The LIC Duet Minimal Adaptor carries a T7*lac* promoter, ribosome binding sequence (rbs), and ATG (Met) start codon (translation initiation site of ORF-2). Annealed ORF-1/adaptor/ORF-2 complexes are annealed to a Novagen Ek/LIC vector designed for expression in *E. coli* to generate a dual ORF recombinant (see TB163 Ek/LIC Vector Kits). Unique sites are shown on the linear map below.



LIC Duet Minimal Adaptor Restriction Sites

TB389 0903

Enzyme # Sites Locations

Apal	1	133
Asel	1	33
BanII	1	133
Bme1580I	1	133
BsaBI	1	19
BsiEI	1	4
Bsp1286I	1	133
BsrBI	1	63
EaeI	1	1
EagI	1	1
PspOMI	1	129
SfiI	1	46
XbaI	1	80

Enzymes that do not cut LIC Duet Minimal Adaptor:

AarI	AatII	Acc65I	AccI	AcII
AfeI	AflII	AflIII	AgeI	AhdI
AleI	Alol	AlwNI	ApaLI	AscI
AsiSI	AvaI	AvrII	BaeI	BamHI
BanI	BbeI	BbsI	BbvCI	BceAI
BcgI	BciVI	BclI	BfrBI	BglII
BglII	BlpI	BmgBI	Bmri	BmtI
BpII	BpmI	Bpu10I	BpuEI	BsaAI
BsaHI	BsaI	BsaWI	BsaXI	BseRI
BseYI	BsgI	BsiHKAII	BsiWI	BsmAI
BsmBI	BsmFI	BsmI	BspCNI	BspEI
BspHI	BspLU11I	BspMI	BsrDI	BsrFI
BsrGI	BssHII	BssSI	Bst1107I	BstAPI
BstBI	BstEII	BstXI	BstYI	BstZ17I
Bsu36I	BtgI	BtrI	BtsI	ClaI
DraI	DraIII	DrdI	EarI	EcoI
Ecl136II	Eco57I	Eco57MI	EcoCRI	EcoNI
EcoQ109I	EcoRI	EcoRV	FalI	FseI
FspAI	FspI	HaeII	HincII	HindIII
HpaI	KasI	KpnI	MfeI	MluI
MscI	MsiI	NaeI	NarI	NcoI
NdeI	NgoMIV	NheI	NotI	NruI
NsiI	NspI	NspV	PacI	PciI
PfiIM1	PfoI	PinAI	PmeI	PmlI
PpiI	PpuMI	PshAI	PsiI	PsrI
PstI	PvuI	PvuII	RsrII	SacI
SacII	SalI	SanDI	SapI	SbfI
Scal	SexAI	SfiI	SfoI	SgrAI
Smal	SmlI	SnaBI	SpeI	SphI
SrfI	Sse8387I	SspI	StuI	StyI
Swal	TaqII	TatI	TspGWI	Tth111I
XcmI	XhoI	XmaI	XmnI	ZraI