LightNing® Restriction Endonucleases

Restriction endonucleases (Restriction enzymes) are a class of endonucleases that can recognize specific nucleotide sequences (4~8 base pairs) within double-stranded DNA and cleave DNA at specific sites. The key characteristic of restriction enzymes is their ability to accurately cut DNA and generate defined ends. The LightNing® restriction endonucleases provided by BestEnzymes use only one universal reaction buffer, which provide a better experience for both single and double enzyme digestions. Moreover, LightNing® restriction endonucleases are compatible with the buffers used in downstream experiments, achieving true one-tube convenience. The LightNing® restriction enzymes can complete digestion within 5~15 minutes, which not only saves user's time but also significantly reduces star activity.

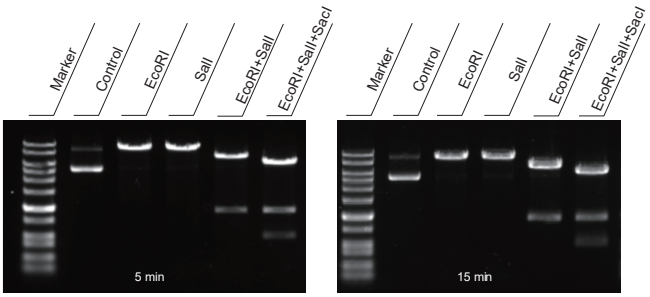


Product Features

- Universal buffer makes multi-enzyme digestions more convenient. Additionally, it is compatible with downstream experiments, reducing the need for additional purification steps and saving time and effort.
- Fast digestion, completed within 5~15 minutes.
- The CutOne® Color Buffer allows for direct gel electrophoresis after digestion.
- Low star activity ensures prolonged reaction without generating non-specific cleavage.

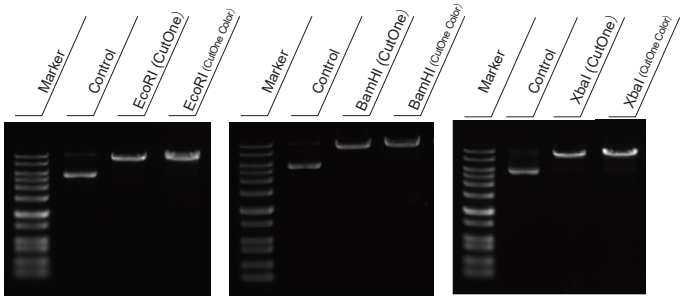
Technical Features

Digestion can be completed accurately within 5~15 minutes



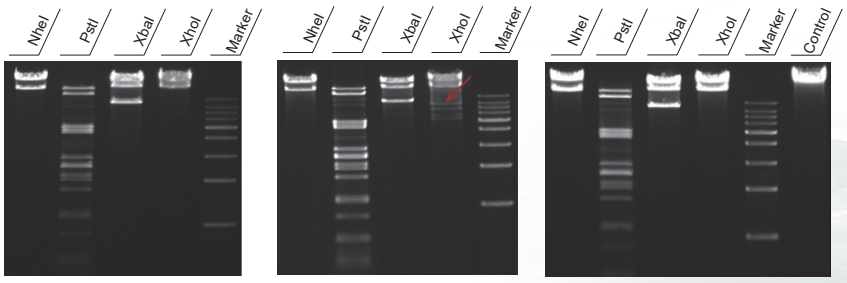
Perform single, double and triple enzyme digestions using LightNing® EcoRI, LightNing® SalI, and LightNing® SacI in CutOne® Buffer. Use 1 μg of plasmid as the substrate and carry out the digestion for 5 and 15 minutes, respectively. Under all reaction conditions, the substrate is completely cleaved accurately.

Consistent digestion results in CutOne® Buffer and CutOne® Color Buffer



Perform digestion using LightNing® EcoRI, LightNing® BamHI, and LightNing® XbaI in CutOne® Buffer and CutOne® Color Buffer with 1 μg of plasmid substrate for 5 minutes. The same enzyme exhibits no significant difference in the digestion results between two buffers.

Ultra-low star activity



Using the fast restriction enzymes NheI, PstI, XbaI, and XhoI from BestEnzymes, Company A, and Company B respectively, perform a 16-hour digestion on λDNA substrate following the recommended protocols by each brand. The results show that enzymes from BestEnzymes and Company A did not exhibit star activity. The arrows present the bands generated by star activity.

LightNing® Restriction Endonucleases

REF No.	Product Name	Specs
EG25511S	LightNing® AatII	30 rxns
EG15502S	LightNing® AccI	50 rxns
EG25501V/S	LightNing® AciI	10 rxns/25 rxns
EG24520S	LightNing® AflIII	100 rxns
EG23501S	LightNing® AgeI	25 rxns
EG25502S	LightNing® ApaI	200 rxns
EG15601S	LightNing® ApaLI	200 rxns
EG24509S	LightNing® AluI	50 rxns
EG15508S	LightNing® AscI	50 rxns
EG25503S	LightNing® AseI	100 rxns
EG26503S	LightNing® AvaI	100 rxns
EG25509S	LightNing® AvaII	100 rxns
EG15509S	LightNing® AvrII	25 rxns
EG15510S	LightNing® BamHI	500 rxns
EG24512S	LightNing® BbsI	25 rxns
EG15513S	LightNing® BclI	125 rxns
EG24507S	LightNing® BglI	200 rxns
EG15591S	LightNing® BglII	100 rxns
EG15518S	LightNing® BsaI	50 rxns
EG25515S	LightNing® Bsh1236I (BstUI)	50 rxns
EG26504V/S	LightNing® BsmBI v2	20 rxns/100 rxns
EG25507S	LightNing® BsmI	50 rxns
EG25512S	LightNing® BspHI	30 rxns
EG23505S	LightNing® BsrGI	30 rxns
EG15607S	LightNing® BstBI	100 rxns
EG15528S	LightNing® BstEII	100 rxns
EG25508S	LightNing® Cfr42I (SacII)	60 rxns
EG15532S	LightNing® ClaI	50 rxns
EG24501S	LightNing® DdeI	50 rxns
EG15585S	LightNing® DpnI	50 rxns
EG15533S	LightNing® DpnII	50 rxns
EG23502S	LightNing® DraI	100 rxns
EG24508S	LightNing® DraIII	30 rxns
EG15535S	LightNing® EagI	25 rxns
EG23511S	LightNing® EarI	30 rxns
EG15536S	LightNing® EcoRI	600 rxns
EG15537S	LightNing® EcoRV	200 rxns
EG21503S	LightNing® Esp3I (BsmBI)	30 rxns
EG24523S	LightNing® FokI	100 rxns
EG15586S	LightNing® FspI	50 rxns
EG23509S	LightNing® HaeIII	300 rxns
EG24510S	LightNing® HhaI	100 rxns
EG15539S	LightNing® HindIII	500 rxns
EG15593S	LightNing® HinfI	500 rxns
EG24511S	LightNing® HinP1I	100 rxns
EG15541S	LightNing® HpaI	50 rxns
EG23507S	LightNing® HpaII	200 rxns
EG15543S	LightNing® KasI	30 rxns
EG15544S	LightNing® KpnI	200 rxns
EG24522S	LightNing® MboI	50 rxns
EG15547S	LightNing® MluI	100 rxns
EG15548S	LightNing® MnlI	50 rxns
EG25505S	LightNing® MscI	30 rxns
EG24518S	LightNing® MseI	50 rxns
EG23508S	LightNing® MspI	250 rxns
EG23510S	LightNing® MunI (MfeI)	25 rxns
EG15550S	LightNing® NcoI	30 rxns
EG15551S	LightNing® NdeI	200 rxns
EG15552S	LightNing® NheI	30 rxns
EG15553S	LightNing® NotI	50 rxns
EG15602S	LightNing® NruI	50 rxns
EG15606S	LightNing® NsiI	25 rxns
EG15603S	LightNing® PacI	25 rxns
EG23506S	LightNing® PmeI	50 rxns
EG15560S	LightNing® PspGI (EcoRII)	200 rxns
EG15561S	LightNing® PstI	500 rxns
EG23513S	LightNing® PvuI	30 rxns
EG15604S	LightNing® PvuII	200 rxns
EG24503S	LightNing® RsaI	100 rxns
EG15565S	LightNing® SacI	100 rxns
EG15605S	LightNing® SacII	50 rxns
EG15566S	LightNing® SalI	200 rxns
EG25524S	LightNing® SapI	50 rxns
EG15568S	LightNing® SbfI	25 rxns
EG24502S	LightNing® ScaI	100 rxns
EG24515S	LightNing® SdaI (SbfI)	25 rxns
EG15570S	LightNing® SfiI	100 rxns
EG15572S	LightNing® SmaI	100 rxns
EG24521S	LightNing® SnaBI	60 rxns
EG15574S	LightNing® SpeI	50 rxns
EG15575S	LightNing® SphI	50 rxns
EG15576S	LightNing® SspI	60 rxns
EG15577S	LightNing® StuI	100 rxns
EG15580S	LightNing® TaqI	200 rxns
EG26505S	LightNing® TseI (ApeKI)	25 rxns
EG24517S	LightNing® Tsp45I	25 rxns
EG15581S	LightNing® XbaI	500 rxns
EG15582S	LightNing® XcmI	60 rxns
EG15583S	LightNing® XhoI	500 rxns

Restriction Endonucleases

REF No.	Product Name	Specs
EG25526S	AarI	100 U
EG25519S	ApeKI	500 U
EG25516S	BbvCI	50 U
EG25525S	BpiI (BbsI)	250 U
EG24506S	BsiWI	300 U
EG22507V/S	BsmBI	200 U/1000 U
EG25528S	BspEI	500 U
EG23503S	BspQI	500 U
EG25506S	BsrDI	250 U
EG24516S	BstXI	500 U
EG25514S	PciI	200 U
EG21501S	SgeI	250 U
EG25513S	SgrAI	500 U
EG24514S	SspDI (KasI)	250 U
EG25527S	SwaI	1000 U
EG25517S	XmnI	500 U

GMP Grade Restriction Endonucleases

Note：Manufactured and managed in compliance with GMP specifications, fully traceable, and free from animal derived components.

REF No.	Product Name	Specs
GMP501S	BsaI, GMP Grade	20000 U
GMP503S	BspQI, GMP Grade	20000 U
GMP505S	NheI, GMP Grade	20000 U
GMP502S	XbaI, GMP Grade	20000 U
GMP504S	XhoI, GMP Grade	20000 U

Nicking Endonucleases

REF No.	Product Name	Specs
EG25518S	Nb.BbvCI	300 U
EG23514S	Nb.BsrDI	2000 U
EG25520S	Nt.BbvCI	150 U
EG23512S	Nt.BspQI	2000 U
EG24504S	Nt.BstNBI	2000 U

RNA Endonucleases

REF No.	Product Name	Specs
EG24505S	MazF	1000 U
EG25521S/M	RNase GG	2500 U/12500 U

Homing Endonucleases

REF No.	Product Name	Specs
EG25529S	I-CeuI	250 U
EG25504S	I-SceI	250 U

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