

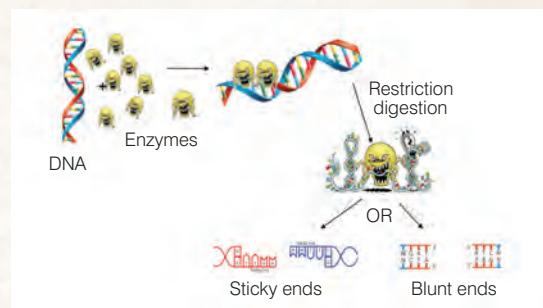
BioLit

Restriction Enzymes

Restriction Enzymes or RE's are special enzymes that cut the DNA molecules into smaller pieces or fragments. This process is called Restriction digestion. These simple but powerful tools are molecular scissors and have been the mainstay in experimental molecular biology of DNA to generate fragments of defined sizes and having proper ends for cloning, release cloned fragments of DNA, characterizing a given DNA by restricting mapping and use of such a map to differentiate between closely and distantly related genes or DNA.

These special enzymes recognize specific sequences in the DNA molecule (for example GATATC) wherever that sequence occurs in the DNA. Because they cut within the molecule, they cut straight across the double helix producing 'blunt' ends or the ends of the cut have an overhanging piece of single-stranded DNA called 'sticky ends'.

SRL offers a large variety of RE's that encompass most of the needs of a researcher. SRL RE's are highly pure, do not affect the integrity of the DNA and enable it to be chosen for even the most demanding applications. Appropriate buffers accompany the enzyme packs to ensure their maximum activity. All enzymes are available at a concentration of 10U/ μ l.



Sr. No.	Product Code	Enzyme	Buffer	Recognition site	Isoschizomer **	Pack Size
1	77976	HindIII	RB2: 100 mM Tris-HCl, 100 mM MgCl ₂ , 500 mM NaCl, 10 mM dithiothreitol and 1 mg/ml BSA.	A/AGCTT		2500U 5000U 20000U
2	91290	EcoRI	RB9: 1M Tris-HCl, 50 mM MgCl ₂ , 500 mM NaCl, 0.25% TritonX-100 and 1 mg/ml BSA	G/AATTC		4000U
3	51914	BamHI	RB6: 100 mM Tris-HCl, 50 mM MgCl ₂ , 1 M NaCl, 10 mM dithiothreitol and 1 mg/ml BSA	G/GATCC		2500U
4	72649	Pvull	RB2: 100 mM Tris-HCl, 100 mM MgCl ₂ , 500 mM NaCl, 10 mM dithiothreitol, 1 mg/ml BSA	CAG/CTG		2000U
5	32338	BglI	RB10: 1M Tris-HCl, 50 mM MgCl ₂ , 500 mM NaCl, 0.25% Triton X-100 and 1 mg/ml BSA	GCCNNNN/ NGGC		1500U 5000U
6	99402	DraI	RB5: 200 mM Tris-acetate, 100 mM magnesium acetate, 500 mM potassium acetate, 10 mM dithiothreitol and 1000 μ g/ml BSA	TTT/AAA	AhalII	1000U
7	90279	EcoRV	RB2: 100 mM Tris-HCl, 100 mM MgCl ₂ , 500 mM NaCl, 10 mM dithiothreitol and 1 mg/ml BSA	GAT/ATC	Eco321	1500U
8	15231	SmaI	RB5: 200 mM Tris-acetate, 100mM Magnesium-acetate, 500 mM Potassium acetate, 10 mM dithiotereitol and 1mg/ml BSA	CCC/GGG	Cfr9I PspAI TspMI XmaCI	500U
9	94651	PstI	RB8: 500 mM Tris HCl, 100 mM MgCl ₂ , 1M NaCl, 10 mM dithiotereitol and 1mg/ml BSA	CTGCA/G	BspMAI	1500U

(RB1, RB2, RB3, RB4, RB5, RB6, RB7, RB8, RB9, RB10, RB11, RB12 are SRL internal reference codes for buffers used)

Sr. No.	Product Code	Restriction Enzyme	Buffer	Recognition site	Isoschizomer **	Pack Size
10	47167	KpnI	RB7: 100 mM Tris-HCl, 100 mM MgCl ₂ , 10 mM dithiothreitol, 0.1% Triton X-100 and 1 mg/ml BSA	GGTAC/C	Acc65I Asp718I	1000U
11	85844	AluI	RB1: 100 mM Tris-HCl, 100 mM MgCl ₂ , 10 mM dithiothreitol and 1 mg/ml BSA	AG/CT		100U 250U
12	23203	BstEII	RB11: 100 mM Tris-HCl, 50 mM MgCl ₂ , 1 M KCl, 10 mM dithiothreitol, 1% Triton X-100 and 1 mg/ml BSA	G/GTNACC	BstPI EcoO65I Eco91I EcoO65I PspEI	500U
13	36322	HinfI	RB3: 500 mM Tris-HCl, 100 mM MgCl ₂ , 1 mM NaCl, 10 mM dithiothreitol and 1 mg/ml BSA	G/ANTC		750U
14	15100	HpaI	RB5: 200 mM Tris-acetate, 100 mM Magnesium-acetate, 500 mM Potassium acetate, 10 mM dithiotereitol and 1 mg/ml BSA		BstHPI KspAI	200U
15	78895	MspI	RB4: 100 mM Tris-HCl, 100 mM MgCl ₂ , 1.5 M NaCl, 10 mM dithiothreitol and 1 mg/ml BSA	C/TTAAG	AfIII BfrI BspTI Bst98I BstAFI Vha464I	250U
16	79971	NcoI	RB3: 500 mM Tris-HCl, 100 mM MgCl ₂ , 1 mM NaCl, 10 mM dithiothreitol and 1 mg/ml BSA	C/CATCC	Bsp19I	125U 300U
17	97361	NotI	RB12: 500 mM Tris-HCl, 100 mM MgCl ₂ , 1 M NaCl, 10 mM dithiothreitol, 0.2% Triton X-100 and 1 mg/ml BSA	GC/ GGCCGC	CciNI	100U
18	97505	RsaI	RB2: 100 mM Tris-HCl, 100 mM MgCl ₂ , 500 mM NaCl, 10 mM dithiothreitol and 1 mg/ml BSA	GT/AC	AfaI Csp6I CviQI	250U
19	10190	Sall	RB4: 100 mM Tris-HCl, 100 mM MgCl ₂ , 1.5 M NaCl, 10 mM dithiothreitol and 1 mg/ml BSA	G/TCGAC		500U 750U
20	96600	XbaI	RB2: 100 mM Tris-HCl, 100 mM MgCl ₂ , 500 mM NaCl, 10 mM dithiothreitol and 1 mg/ml BSA	T/CTAGA		750U 1250U
21	24848	BglII	RB3: 500 mM Tris-HCl, 100 mM MgCl ₂ , 1 mM NaCl, 10 mM dithiothreitol and 1 mg/ml BSA	A/GATCT		250U 500U

(RB1, RB2, RB3, RB4, RB5, RB6, RB7, RB8, RB9, RB10, RB11, RB12 are SRL internal reference codes for buffers used)

** Restriction endonucleases that recognize the same sequence are isoschizomers. The first example discovered is called a prototype and all subsequent enzymes that recognize the same sequence are isoschizomers of the prototype.

Please contact: