vivantis

10-Go™ RE kit

A typical freezer in a molecular biology laboratory consists of a host of the quintessential restriction enzyme from various sources. Next come the laborious hunt for different buffer charts to culminate in a compromise of buffers for double digestions. Vivantis presents a solution to this task! Our 10-go kits consist of selected enzymes for your use, coupled with recommended optimal buffers for double digestions. This is complemented with an unbelievable price performance ratio with the offer for "buy 1, get more". Our 10-go kits present sets of restriction enzymes to provide you with hassle free tools for your molecular biology applications, saving both time and money!

10-go, giving scientists time to tango!

Lot #

Store AT -20°C

10-GO RE KIT SET (A) - RK1000

Kit Component : Restriction Endonucleases (10 types)
0.5ml Diluent Viva Buffer A
1ml 10X Buffers (Buffer V1, V2, V3, V4, V5, Universal Buffer, Buffer *Eco*R I, Buffer *Ama*87 I)
(BSA included in all Reaction Buffer)

RESTRICTION ENDONUCLEASES SPECIFICATION :

ENZYME	(u/µl)	TOTAL UNIT	REG.SITE	OPT.BUFFER	OPT.(°C)	THERMA INAC.	ACTIVITY IN REACTION BUFFER V1	V2	V3	V4	V5
***Ama*87 I** (Ava I)	20	100	5'..C^YCGRG..3'	SP	37	65°C, 20min	10%	25%	50%	75%	10%
***Bam*H I**	20	400	5'..G^GATCC..3'	UB1X	37	65°C, 20min	75%	75%	50%	75%	50%
***Eco*R I**	20	500	5'..G^AATTC..3'	SP	37	65°C, 20min	50%	50%	100%	100%	50%
***Fau*ND I** (*Nde* I)	10	100	5'..CA^TATG..3'	V5	37	65°C, 20min	50%	75%	50%	75%	100%
***Hind* III**	20	400	5'..A^AGCTT..3'	V2	37	65°C, 20min	75%	100%	75%	75%	75%
***Kpn* I**	30	200	5'..GGTAC^C..3'	V1	37	Non-Thermal Inac.	100%	25%	25%	25%	75%
***Sal* I**	3	150	5'..G^TCGAC..3'	V3	37	65°C, 20min	0%	75%	100%	100%	100%
***Sma* I**	20	100	5'..CCC^GGG..3'	V5	25	65°C, 20min	25%	10%	10%	75%	100%
***Sph* I**	5	50	5'..GCATG^C..3'	UB1X	37	65°C, 20min	75%	75%	50%	75%	75%
***Xba* I**	20	300	5'.T^CTAGA..3'	V5	37	65°C, 20min	10%	75%	75%	10%	100%

REMARK

***Ama*87 I** High enzyme concentration may result in Star Activity.
***Bam*H I** High enzyme concentration may result in Star Activity.
***Eco*R I** High enzyme concentration may result in Star Activity.
***Fau*ND I** Sensitive to impurities present in some DNA preparation.
***Sal* I** High enzyme concentration may result in Star Activity.
***Sma* I** Blocked by CpG Methylation.
***Xba* I** Blocked by overlapping dam-methylation ($G^{m}ATC$): TCTAGATC

BUFFER COMPATIBILITY CHART:

Set 1	Ama87 I	BamH I	EcoR I	FauND I	Hind III	Kpn I	Sal I	Sma I	Sph I	Xba I
Ama87 I		V4	V4	V4	V4	2.0XUB	V4	V4	V4	2.0XUB
BamH I	V4		V4	V2/V5	V1/V4/V5	V1	V2-V5	V5	V2	V2/V5
EcoR I	V4	V4		V4	V3/V4	V1	V3	V4	all	1.5XUB
FauND I	V4	V1/V4/V5	V4		V1/V4/V5	V1	V4/V5	V5	V1/V5	V5
Hind III	V4	V1/V4/V5	V3/V4	V2/V5		V1	V2/V5	V5	V2	V2/V5
Kpn I	2.0XUB	V1	V1	V5	V1		V5	V5	V1	V5
Sal I	V4	V2-V5	V3	V5	V2-V5	V5		V5	V5	V5
Sma I	V4	V5	V4	V5	V5	V5	V5		V5	V5
Sph I	V4	V2	all	V5	V2	V1	V5	V5		V5
Xba I	2.0XUB	V2/V5	1.5XUB	V5	V2/V5	V5	V5	V5	V5	

Activity:

100%
75%
50%

Specific Buffer
Not applicable

BUFFER COMPOSITION:

V1Bff 10mM Tris-HCL (pH 7.5 at 30°C), 10mM $MgCl_2$, and 100µg/ml BSA.

V2Bff 10mM Tris-HCL (pH 7.5 at 30°C), 10mM $MgCl_2$, 50mM NaCl and 100µg/ml BSA.

V3Bff 50mM Tris-HCL (pH 7.5 at 30°C), 10mM $MgCl_2$, 100mM NaCl and 100µg/ml BSA.

V4Bff 10mM Tris-HCL (pH 8.5 at 30°C), 10mM $MgCl_2$, 100mM KCl and 100µg/ml BSA.

V5Bff 30mM Tris-acetate (pH 7.9 at 30°C), 10mM Mg-acetate, 60mM K-acetate and 100µg/ml BSA.

UBBff 1.0X UB
25mM Tris-acetate (pH 7.6 at 30°C), 10mM Mg-acetate, 100mM K-acetate, 7mM 2-mercaptoethanol and 50µg/ml BSA.

SPBff **Buffer *Eco*R I**
50mM Tris-HCL (pH 7.5 at 30°C), 10mM $MgCl_2$, 100mM NaCl, 0.02% triton X-100 and 0.1mg/ml BSA.

ENZYME	LIGATION/RECUTTING ASSAY	OVERDIGESTION ASSAY
***Ama*87 I** (*Ava* I)	After 20-fold overdigestion with ***Ama*87 I,** more than 90% of the DNA fragments can be ligated and recut	An unaltered banding pattern was observed after 1 µg of DNA was digested with 40u of ***Ama*87 I,** for 16 hours at 37^{O}C (Without BSA).
***Bam*H I**	After 20-fold overdigestion with ***Bam*H I,** more than 90% of the DNA fragments can be ligated and recut	An unaltered banding pattern was observed after 1 µg of DNA was digested with 40u of ***Bam*H I,** for 16 hours at 37^{O}C .
***Eco*R I**	After 20-fold overdigestion with ***Eco*R I,** more than 95% of the DNA fragments can be ligated and recut	An unaltered banding pattern was observed after 1 µg of DNA was digested with 40u of ***Eco*R I,** for 16 hours at 37^{O}C (Without BSA).
***Fau*ND I** (*Nde* I)	After 10-fold overdigestion with ***Fau*ND I,** 60% of the DNA fragments can be ligated and recut	An unaltered banding pattern was observed after 1 µg of DNA was digested with 20u of ***Fau*ND I,** for 16 hours at 37^{O}C.
***Hin*d III**	After 20-fold overdigestion with ***Hin*d III,** more than 90% of the DNA fragments can be ligated and recut	An unaltered banding pattern was observed after 1 µg of DNA was digested with 40u of ***Hin*d III,** for 16 hours at 37^{O}C .
***Kpn* I**	After 30-fold overdigestion with ***Kpn* I,** more than 90% of the DNA fragments can be ligated and recut	An unaltered banding pattern was observed after 1 µg of DNA was digested with 60u of ***Kpn* I,** for 16 hours at 37^{O}C (Without BSA).
***Sal* I**	After 3-fold overdigestion with ***Sal* I,** 95% of the DNA fragments can be ligated and recut	An unaltered banding pattern was observed after 1 µg of DNA was digested with 6u of ***Sal* I,** for 16 hours at 37^{O}C (Without BSA).
***Sma* I**	After 20-fold overdigestion with ***Sma* I,** more than 90% of the DNA fragments can be ligated and recut	An unaltered banding pattern was observed after 1 µg of DNA was digested with 40u of ***Sma* I,** for 16 hours at 25^{O}C .
***Sph* I**	After 5-fold overdigestion with ***Sph* I,** more than 90% of the DNA fragments can be ligated and recut	An unaltered banding pattern was observed after 1 µg of DNA was digested with 10u of ***Sph* I,** for 16 hours at 37^{O}C .
***Xba* I**	After 20-fold overdigestion with ***Xba* I,** 90% of the DNA fragments can be ligated and recut	An unaltered banding pattern was observed after 1 µg of DNA was digested with 40u of ***Xba* I,** for 16 hours at 37^{O}C .