10-GO™ RE kit

vivantis

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!

10-GO RE KIT SET (D) - RK4000

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)
(BSA included in all Reaction Buffer)

Lot #

Store AT -20°C

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
***Bam*H I**	15	400	5'..G^GATCC..3'	V2	37	65°C, 20min.	75%	100%	75%	75%	75%
***Bme*18 I (*Ava* II)**	5	50	5'..G^GWCC..3'	V3	37	65°C, 20min.	50%	75%	100%	100%	100%
***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	50	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**	20	200	5'..GGTAC^C..3'	V1	37	Non-Thermal Inac.	100%	25%	25%	25%	75%
***Psp*124B I (*Sac* I)**	20	100	5'..GAGCT^C..3'	V2	37	65°C, 20min.	100%	100%	75%	100%	100%
***Sfr*274 I (*Xho* I)**	10	200	5'..C^TCGAG..3'	V1	50	65°C, 20min.	100%	100%	50%	50%	75%
***Sma* I**	20	100	5'..CCC^GGG..3'	V5	25	65°C, 20min.	25%	10%	10%	75%	100%
***Taq* I**	20	300	5'..T^CGA..3'	V5	65	Non-Thermal Inac.	10%	100%	75%	75%	100%

REMARK:

***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.**
***Sma* I**	**Blocked by CpG Methylation.**
***Taq* I**	**Blocked by overlapping dam-methylation.**

BUFFER COMPATIBILITY CHART

RK6000	*Bam*H I	*Bme*18 I	*Eco*R I	*Fau*ND I	*Hind* III	*Kpn* I	*Psp*124BI	*Sfr*274 I	*Sma* I	*Taq* I
*Bam*H I		V4/V5	V4	V1/V4/V5	V1/V4/V5	V1	V1/V4/V5	V1	V5	V5
*Bme*18 I	V4/V5		V3/V4	V4/V5	V2-V5	V5	V4/V5	1.0X UB	V5	V5
*Eco*R I	V4	V3/V4		V4	V3/V4	V1	V4	all	V4	V3/V4
*Fau*ND I	V1/V4/V5	V4/V5	V4		V1/V4/V5	V1	V1/V4/V5	V1	V5	V5
Hind III	V1/V4/V5	V2-V5	V3/V4	V1/V4/V5		V1	V2	V2	V5	V2
Kpn I	V1	V5	V1	V1	V1		V1	V1	V5	V5
*Psp*124BI	V1/V4/V5	V4/V5	V4	V1/V4/V5	V2	V1		V/V2	V5	V2/V5
*Sfr*274 I	V1	1.0X UB	all	V1	V2	V1	V1/V2		1.0X UB	V2
Sma I	V5	V5	V4	V5	V5	V5	V5	1.0X UB		V5
Taq I	V5	V5	V3/V4	V5	V2	V5	V2/V5	V2	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
***Bam*H I**	After 15-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 1µg of DNA was digested with 30 uof ***Bam*H I** for 16 hours at 37°C (Without BSA).
***Bme*18 I** (*Ava* II)	After 5-fold overdigestion with ***Bme*18 I**, more than 90% of the DNA fragments can be ligated and recut.	An unaltered banding pattern was observed after 1µg of DNA was digested with 10u of ***Bme*18 I** for 16 hours at 37°C (Without BSA).
***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 1µg of DNA was digested with 40u of ***Eco*R I** for 16 hours at 37°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 1µg of DNA was digested with 20u of ***Fau*ND I** for 16 hours at 37°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 1µg of DNA was digested with 40u of ***Hin*d III** for 16 hours at 37°C.
***Kpn* I**	After 20-fold overdigestion with ***Kpn* I**, more than 90% of the DNA fragments can be ligated and recut.	An unaltered banding pattern was observed after 1µg of DNA was digested with 40u of ***Kpn* I** for 16 hours at 37°C (Without BSA).
***Psp*124B I** (*Sac* I)	After 20-fold overdigestion with ***Psp*124B I**, more than 95% of the DNA fragments can be ligated and recut.	An unaltered banding pattern was observed after 1µg of DNA was digested with 40u of ***Psp*124B I** for 16 hours at 37°C (Without BSA).
***Sfr*274 I** (*Xho* I)	After 10-fold overdigestion with ***Sfr*274 I**, 90% of the DNA fragments can be ligated and recut.	An unaltered banding pattern was observed after 1µg of DNA was digested with 20u of ***Sfr*274 I** for 16 hours at 50°C.
***Sma* I**	After20-fold overdigestion with ***Sma* I**, more than 90% of the DNA fragments can be ligated and recut.	An unaltered banding pattern was observed after 1µg of DNA was digested with 40u of ***Sma* I** for 16 hours at 25°C.
***Taq* I**	After 20-fold overdigestion with ***Taq* I**, more than 95% of the DNA fragments can be ligated and recut.	An unaltered banding pattern was observed after 1µg of DNA was digested with 40u of ***Taq* I** for 16 hours at 65°C.