

RapidDigest TaqI

Cat No.	Digestion site	Quantity	Isoschizomer
RD1141	5'...T↓C G A...3' 3'...A G C ↑ T...5'	70μl (1RDU/μl)	-
Source:	Incubation	Inactive	Active site on λ DNA
<i>Arthrobacter luteus</i>	30 min at 65°C	-	121

Supplied with: **350 μl 10X RapidDigest Universal Buffer, 140 μl 10X RD Blue Buffer**

Store at -20°C, avoid frequent thawing and freezing.

For in vitro use only

All RapidDigest Restriction Enzymes is completely active in Universal RD Buffer and digest DNA in 15-30 minutes or less.

RD restriction enzyme also eliminates need for sequential digestion during double digest methods.

Recommended assay

1-Add below materials to 0.5ml tube:

	Plasmid/ Lambda DNA	PCR product	Genomic DNA
Water DNase free	15ul	17ul	30ul
10X RapidDigest Buffer	2ul	2ul	5ul
DNA	2ul (up to 1ug)	10ul (.0.2ug)	10ul (5ug)
RapidDigest Enzyme	1ul(1 RDU)	1ul(1 RDU)	5ul(5 RDU)
Total Volume	20ul	30ul	50ul

2- Mix gently and spin down.

3- Incubate at 65°C for 15-30 minutes¹.

1. Time of incubation may need to optimization but it could be achieved between 5 to 30 minutes. For digestion of difficult to cleave-DNA, incubation time may extend to one hour.

Ligation and recutting:

After 5-fold over digestion with, >95% of the DNA fragments can be ligated and recut with this enzyme.

DNA Methylation:

No Inhibition: CpG, dcm

Inhibition (Impaired by overlapping): dam

Unit Definition:

One RapidDigest Unit (1 RDU) is the amount of enzyme required to completely digest 1 μ g of Lambda DNA in 15-30 minute in 1X RapidDigest buffer.

Quality Control:

All preparations are assayed for contaminating endonuclease, 3'-exonuclease, 5'-exonuclease/ 5'-phosphatase, as well as nonspecific single and double stranded DNase activities.

For double digestion simply add 1ul of each enzyme and scale up the reaction. For different temperature reaction start of the enzymes that requires lower temperature.

λ DNA used as substrate for unit definition and quality control tests.