GIBCO BRL

LIFE TECHNOLOGIES™

Ava I

Cat. No. 25220-013 **Size: 300 units**
Conc.: 2-8 U/µl **Store at -20°C (not frost-free).**

5′-C↓PyCGPu G-3′
3′-G PuGCPy↑C-5′

Description:
Ava I is isolated from a strain of *E. coli* that bears the cloned *Ava* I gene from *Anabaena variabilis*. One unit is the amount of enzyme required to cleave 1 µg of λ DNA in one hour at 37°C in the appropriate buffer.

Components:

25220-013	*Ava* I
Y92500	REACT® 2

Storage Buffer:
50 mM Tris-HCl (pH 7.5)
0.1 mM EDTA
10 mM 2-mercaptoethanol
500 µg/ml BSA
50% (v/v) glycerol
0.1% (w/v) Triton® X-100

Reaction Conditions:
Use REACT 2. REACT 2 is the 10X concentrate assay buffer supplied for use with *Ava* I. Dilute 1 part in 10 in final reaction mixture.
Final concentration:
50 mM Tris-HCl (pH 8.0)
10 mM $MgCl_2$
50 mM NaCl
Assay at 37°C.
Store buffer at 4°C or -20°C.

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Quality Control:
Endonuclease Assay:
Cleavage only at recognition site at 100-fold excess digest of λ DNA.

Exonuclease Assay:
Using 1 pmol radiolabeled termini in a 50-µl reaction and up to 20 units of enzyme for one hour, the following results were observed:
1 unit of enzyme removed ≤ 0.3% label from 5′ ends.
1 unit of enzyme removed ≤ 0.3% label from 3′ ends.

Ligation/Recut Assay:
On λ DNA: ≥ 95% ligation in 16 hours at 22°C. 100% recut.

The enclosed buffers were assayed with the enzyme and met quality control specifications.

Note:
Partially resistant to heat inactivation (10 min, 65°C).

REFER TO THE GIBCO BRL CATALOGUE AND REFERENCE GUIDE FOR NOTES ON CONDITIONS WHICH AFFECT ENZYME ACTIVITY.