M13mp18 RF I DNA

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N4018S 042130815081

N4018S

10 µg Lot: 0421308 Exp: 8/15

100 µg/ml Store at –20°C

Description: M13mp18 is the double-stranded, covalently closed, circular form of DNA derived from bacteriophage M13. This phage vector contains single HindIII, SphI, SbfI, PstI, SalI (AccI/ HincII), XbaI, BamHI, SmaI (XmaI), KpnI (Acc65I), SacI and EcoRI sites within the β-Galactosidase gene (1). When a fragment of DNA is inserted into one of these sites, the β-Galactosidase gene is inactivated, providing selection for clones on the appropriate indicator plate (2).

Preparation: The phage M13mp18 is propagated in *E. coli* ER2738(3). The replicative form of DNA is isolated from infected cells and purified by a standard plasmid purification procedure. The final preparation is tested for its suitability as a vector.

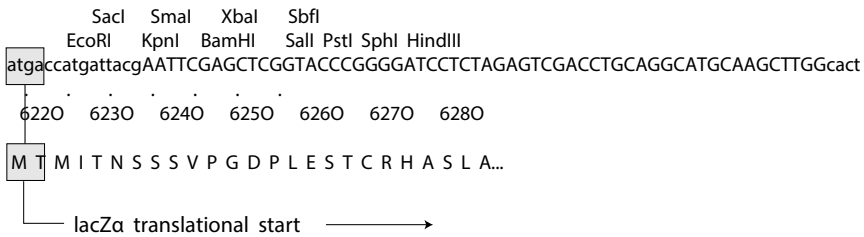
Supplied in: 10 mM Tris-HCl (pH 8.0 @25°C), 1 mM EDTA.

Transformation Reaction: Undigested vector (12 ng/100 µl competent cells) yielded 3.3 x 10^5 pfu/µg plaques. Of these, 100% were blue plaques and < 0.05% were colorless.

EcoRI digested vector yielded 3% blue plaques and < 0.05% colorless plaques.

EcoRI digested vector ligated in the absence of target DNA yielded 34% blue plaques and < 0.05% colorless plaques.

EcoRI digested vector ligated in the presence of target DNA yielded 29% blue plaques and 7% colorless plaques.



References:

1. Norrander, J., Kempe, T. and Messing, J. (1983) *Gene* 26, 101–106.
2. Messing, J., Crea, R. and Seeburg, P.H. *Nucleic Acids Research* 9, 309–321.
3. Messing, J. (1979) *Recombinant DNA Technical Bulletin* (NIH) 2, 43–48.

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CERTIFICATE OF ANALYSIS