Restriction Defects: McrA, McrBC, and Mrr all restrict methylcytosine-containing DNA methylated by the Cpg methylase (M.Sss I) (1). In addition, McrA and McrBC specifically restrict DNA modified by different sets of more sequence-specific cytosine methylases (2). Mrr also restricts many methyladenine-containing sequences (3,4). Restriction by each of these three restriction systems individually (tested with λ DNA modified with the Sss I methylase and then packaged into phage) is: McrA, 250-fold; McrBC, 100-fold; Mrr, 200-fold. Cumulative restriction when all three are present in the same cell is 5,000-fold (1). In addition, EcoK restricts DNA not modified at K sites by 10-fold to 5,000-fold, depending on the number of sites (5). ER1793 is deficient in all four systems (1). This strain was reported to yield good quality libraries of Helicobacter pylori chromosomal DNA (6).

Notes: Storage at –70°C is recommended for periods longer than 30 days. Avoid repeated freeze/thaw cycles.

References: