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Table 45-4. Commonly used for Assessment of Water Quality

Host	Strain	Strengths	Weaknesses	Stability
<i>S. typhimurium</i> (F <sup>-</sup> )	WG45	Detects somatic Salmonella phages	Shows only somatic attack	
<i>S. typhimurium</i> (F <sup>+</sup> )	WG49	Reported to be selective for F-RNA phages. Low rate of F <sup>-</sup> plasmid segregation. Kanamycin & nalidixic acid resistant	Not specific to F-RNA phages: also susceptible to attack by salmonella somatic phages and F-DNA phages. Somatic salmonella phages cause major interference	An unstable strain and unpredictability loses its ability to plaque F-specific phages
<i>E. coli</i> (F <sup>-</sup> )	CN, CN13	Nalidixic acid resistant strain		
<i>E. coli</i> (F <sup>-</sup> )	K-12		Show somatic attack	
<i>E. coli</i> (K-12 F <sup>+</sup> )	WG21, A/λ, Q13		Susceptible to F-DNA phage attack. Also, plaque somatic T phages. Highly inefficient for enumeration of naturally occurring FRNA phages.	
<i>E. coli</i> (F <sup>-</sup> )	B		Produces plaque counts 5-6 times lower. Also, plaque somatic T phages.	
<i>E. coli</i> (F <sup>-</sup> )	C	More plaques, highest counts. Nalidixic acid resistant. Most suitable for isolating DNA somatic phages, especially temperature phages		Plaque somatic T phages
<i>E. coli</i> (F <sup>+</sup> )	C-3000		May be infected by some somatic coliphages. Majority of phages were somatic	
<i>E. coli</i> (K-12 F <sup>+</sup> )	W3110			
<i>E. coli</i>	R AMP, RR	Ampicillin and Streptomycin resistant. Gives the highest % of detection for FRNA phages	Low counts and susceptible to FDNA phage attack	<i>E. coli</i> RR, stable

Modified from LeClerc *et al.* (32)