

| <i>T4 genes</i> | Products                                                     |
|-----------------|--------------------------------------------------------------|
| <i>rIIA</i>     | protector from prophage-induced early lysis                  |
| 39              | DNA topoisomerase II large subunit                           |
| <i>dexA</i>     | DNA exonuclease A                                            |
| <i>dda</i>      | DNA-dependent ATPase, DNA helicase                           |
| 61              | DNA replication primase                                      |
| 41              | replicative DNA helicase                                     |
| 40              | membrane-associated initiator of head vertex assembly        |
| <i>UvsX</i>     | RecA-like recombination protein                              |
| 43              | core DNA polymerase of replisome                             |
| <i>regA</i>     | translational repressor RegA                                 |
| 62              | clamp loader small subunit                                   |
| 44              | DNA polymerase accessory protein                             |
| 45              | sliding clamp                                                |
| 45.2            | hypothetical protein                                         |
| 46              | endonuclease subunit                                         |
| 47              | endonuclease subunit                                         |
| <i>a-gt.4</i>   | hypothetical protein                                         |
| 55              | RNA polymerase sigma factor                                  |
| <i>nrdH</i>     | subunit of an anaerobic ribonucleotide reductase complex     |
| <i>nrdC.11</i>  | hypothetical protein                                         |
| <i>tk</i>       | thymidine kinase                                             |
| <i>tk.4</i>     | hypothetical protein                                         |
| <i>vs.1</i>     | hypothetical protein                                         |
| 57B             | hypothetical protein                                         |
| 1               | deoxynucleoside monophosphate kinase                         |
| 3               | tail sheath stabilizer, terminator                           |
| 2               | DNA end protector protein                                    |
| 4               | head completion protein                                      |
| 53              | baseplate wedge protein                                      |
| 5               | baseplate hub subunit and tail lysozyme                      |
| 6               | baseplate wedge subunit                                      |
| 7               | baseplate wedge subunit                                      |
| 8               | baseplate wedge subunit                                      |
| 9               | tail fiber connector and trigger for tail sheath contraction |
| 10              | baseplate wedge subunit and tail pin                         |
| 11              | baseplate wedge subunit and tail pin                         |
| 12              | short tail fibers                                            |
| <i>wac</i>      | fibrillin                                                    |
| 13              | neck protein                                                 |
| 14              | neck protein                                                 |
| 15              | tail sheath stabilizer and completion protein                |
| 16              | small terminase protein                                      |
| 17              | large terminase protein                                      |
| 18              | outer contractile sheath protein of phage tail               |
| 19              | inner tube protein of phage tail                             |
| 20              | portal protein                                               |
| 68              | prohead core protein                                         |
| 21              | prohead core scaffolding protein and protease                |
| 22              | head scaffolding protein                                     |

|             |                                                        |
|-------------|--------------------------------------------------------|
| 23          | major capsid protein                                   |
| 24          | capsid vertex protein                                  |
| <i>inh</i>  | inhibitor of prohead protease                          |
| <i>uvrW</i> | UV repair and recombination protein                    |
| <i>uvrY</i> | recombination, repair and ssDNA binding protein        |
| 25          | baseplate wedge subunit                                |
| 26          | baseplate hub subunit                                  |
| 48          | tail tube accessory protein                            |
| 54          | baseplate subunit                                      |
| 30          | ATP-dependent DNA ligase                               |
| 30.3        | hypothetical protein                                   |
| 31          | co-chaperone GroES                                     |
| <i>cd</i>   | deoxycytidylate deaminase                              |
| <i>pseT</i> | polynucleotide kinase                                  |
| <i>rnI</i>  | RNA ligase A                                           |
| <i>nrdB</i> | subunit of an aerobic ribonucleotide reductase complex |
| <i>nrdA</i> | subunit of an aerobic ribonucleotide reductase complex |
| <i>td</i>   | I-TevI homing endonuclease                             |
| <i>frd</i>  | dihydrofolate reductase                                |
| 32          | single-stranded DNA binding protein                    |
| 59          | helicase loading protein                               |
| 33          | late promoter transcription accessory protein          |
| <i>dsbA</i> | double-stranded DNA binding protein                    |
| <i>rnH</i>  | RnaseH                                                 |
| 34          | long tail fiber, proximal subunit                      |
| 52          | DNA topoisomerase II medium subunit                    |
| <i>rII</i>  | protector from prophage-induced early lysis            |