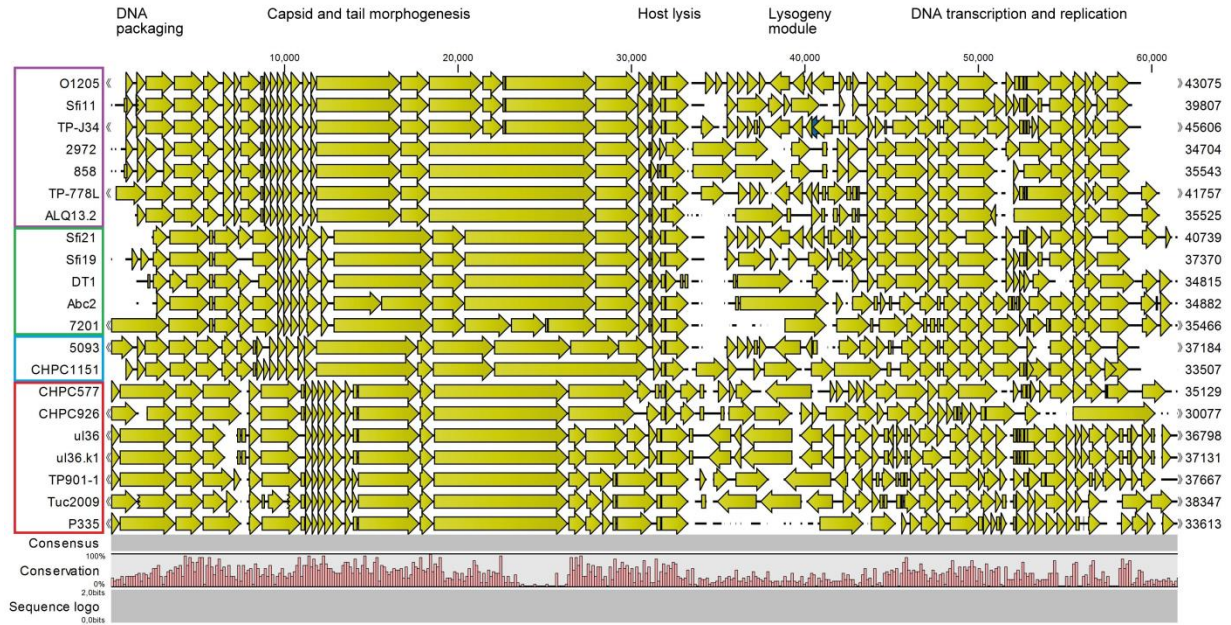


1 Supplemental material



2

3 FIG S1 Multiple genome alignment of phages CHPC577, CHPC926, CHPC1151 with the *S.*
4 *thermophilus* phages and the subgroup II *L. lactis* P335 phages available in the NCBI database,
5 based on nucleotide sequences. Sequences are sorted by similarity. Four recognized homology
6 clusters are marked in different colors.

7 TABLE S1 List of ORFs from phages CHPC577, CHPC926, and CHPC1151 holding start
8 codons sequences different from ATG.

| Phage | ORF no. | Starting codon |
|--------------|-----------------|-----------------------|
| CHPC577 | 3, 7, 9, 38, 47 | TTG |
| CHPC926 | 3, 7, 9 | TTG |
| | 1, 17 | GTG |
| CHPC1151 | 2, 44 | TTG |
| | 4, 42, 45 | GTG |

9

10

11 TABLE S2 Features and putative functions of ORFs annotated for phage CHPC577.

| ORF | Size [aa] | Mol mass [kDa] | pI | Putative function | Highest identity | Identity [%] | Accession no. |
|-------------------|--------------|----------------------|-------------|------------------------------------|---|--------------|---------------|
| | | | | RASTtk | tBLASTn | tBLASTn | tBLASTn |
| CHPC577_01 | 138 | 15.41 | 9.56 | hypothetical protein | <i>L. lactis</i> subsp. cremoris NZ9000 | 73 | CP002094 |
| CHPC577_02 | 463 | 53.16 | 7.20 | terminase, large subunit | <i>L. lactis</i> phage ul36.k1 | 98 | DQ394806 |
| CHPC577_03 | 447 | 51.54 | 4.41 | portal protein | <i>L. lactis</i> phage ul36.k1 | 93 | DQ394806 |
| CHPC577_04 | 347 | 39.80 | 9.29 | minor capsid protein | <i>L. lactis</i> phage Tuc2009 | 95 | AF109874 |
| CHPC577_05 | 200 | 22.21 | 4.64 | capsid and scaffold protein | <i>L. lactis</i> phage TP901-1 | 96 | X84706 |
| CHPC577_06 | 288 | 31.33 | 5.83 | major capsid protein | <i>L. lactis</i> phage ul36 | 93 | AF349457 |
| CHPC577_07 | 64 | 6.38 | 4.71 | major tail protein | <i>L. lactis</i> phage ul36 | 96 | AF349457 |
| CHPC577_08 | 111 | 12.92 | 4.61 | hypothetical protein | <i>L. lactis</i> subsp. cremoris SK11 | 98 | CP000425 |
| CHPC577_09 | 104 | 12.15 | 4.56 | hypothetical protein | <i>L. lactis</i> subsp. lactis CV56 | 97 | CP002365 |
| CHPC577_10 | 109 | 11.95 | 10.34 | capsid and scaffold protein | <i>L. lactis</i> phage Tuc2009 | 97 | AF109874 |
| CHPC577_11 | 130 | 14.79 | 6.53 | capsid and scaffold protein | <i>L. lactis</i> phage Tuc2009 | 95 | AF109874 |
| CHPC577_12 | 166 | 18.26 | 4.57 | tail protein | <i>L. lactis</i> phage ul36 | 98 | AF349457 |
| CHPC577_13 | 117 | 13.46 | 4.70 | hypothetical protein | <i>L. lactis</i> phage P335 | 97 | DQ838728 |
| CHPC577_14 | 90 | 10.67 | 10.27 | hypothetical protein | <i>L. lactis</i> phage P335 | 99 | DQ838728 |
| CHPC577_15 | 917 | 99.20 | 9.88 | tape-measure protein | <i>L. lactis</i> subsp. cremoris SK11 | 76 | CP000425 |
| CHPC577_16 | 254 | 29.12 | 6.81 | capsid and scaffold protein | <i>L. lactis</i> subsp. cremoris SK11 | 94 | CP000425 |
| CHPC577_17 | 902 | 99.82 | 5.34 | hypothetical protein | <i>L. lactis</i> phage ul36 | 72 | AF349457 |
| CHPC577_18 | 648 | 71.70 | 5.58 | upper baseplate protein | <i>L. lactis</i> subsp. cremoris SK11 | 90 | CP000425 |
| CHPC577_19 | 176 | 19.59 | 9.88 | serine acetyltransferase | <i>Lactobacillus helveticus</i> R0052 | 65 | CP003799 |
| CHPC577_20 | 75 | 8.67 | 6.84 | holin | <i>L. lactis</i> subsp. cremoris SK11 | 100 | CP000425 |
| CHPC577_21 | 81 | 8.77 | 7.54 | holin | <i>S. thermophilus</i> phage 858 | 91 | EF529515 |
| CHPC577_22 | 201 | 21.99 | 4.48 | lysine | <i>S. thermophilus</i> phage 7201 | 93 | AF145054 |
| CHPC577_23 | 254 | 29.98 | 10.31 | endonuclease | <i>S. thermophilus</i> phage S92 | 100 | AF148563 |
| CHPC577_24 | 76 | 8.65 | 3.68 | lysine | <i>S. thermophilus</i> phage DT1 | 97 | AF085222 |
| CHPC577_25 | 112 | 12.25 | 10.29 | hypothetical protein | <i>S. thermophilus</i> phage DT1 | 86 | AF085222 |
| CHPC577_26 | 93 | 10.60 | 10.05 | hypothetical protein | <i>S. thermophilus</i> phage SK778 | 74 | HG917970 |

| | | | | | | | |
|--------------------|------------|--------------|-------------|---|---|-----|----------|
| CHPC577_27 | 184 | 21.40 | 8.33 | hypothetical protein | <i>S. thermophilus</i> phage DT1 | 90 | AF085222 |
| CHPC577_28* | 227 | 24.71 | 9.91 | hypothetical protein | <i>S. macedonicus</i> ACA-DC 198 | 45 | HE613569 |
| CHPC577_29 | 70 | 8.07 | 7.55 | hypothetical protein | <i>S. thermophilus</i> phage phiBHN167 | 90 | HF563658 |
| CHPC577_30 | 47 | 5.41 | 10.63 | hypothetical protein | <i>S. thermophilus</i> phage Abc2 | 88 | FJ236310 |
| CHPC577_31 | 43 | 4.98 | 6.49 | hypothetical protein | <i>Streptococcus</i> sp. HTS5 | 59 | CP015196 |
| CHPC577_32 | 105 | 12.27 | 4.40 | hypothetical protein | <i>S. thermophilus</i> phage DT1 | 100 | AF085222 |
| CHPC577_33 | 184 | 21.24 | 10.47 | endonuclease | <i>Staphylococcus</i> phage StB20 | 64 | JN700521 |
| CHPC577_34 | 234 | 26.44 | 4.67 | DNA-binding protein | <i>S. thermophilus</i> phage DT1 | 100 | AF085222 |
| CHPC577_35 | 444 | 50.43 | 8.06 | DNA helicase | <i>S. thermophilus</i> phage ALQ13.2 | 99 | FJ226752 |
| CHPC577_36 | 152 | 17.29 | 4.74 | single-stranded DNA- binding protein | <i>S. thermophilus</i> phage Sfi21 | 100 | AF004379 |
| CHPC577_37 | 270 | 30.14 | 7.26 | replication protein | <i>S. thermophilus</i> phage Sfi21 | 99 | AF004379 |
| CHPC577_38 | 504 | 58.80 | 7.07 | DNA primase/helicase | <i>S. thermophilus</i> phage SFi18 | 98 | X77469 |
| CHPC577_39 | 107 | 12.12 | 10.25 | hypothetical protein | <i>S. thermophilus</i> phage 2972 | 93 | AY699705 |
| CHPC577_40 | 39 | 4.37 | 4.33 | hypothetical protein | <i>S. thermophilus</i> phage TP-J34 | 79 | HE861935 |
| CHPC577_41 | 58 | 6.37 | 10.19 | hypothetical protein | <i>S. thermophilus</i> phage O1205 | 97 | U88974 |
| CHPC577_42 | 55 | 6.65 | 6.52 | hypothetical protein | <i>S. thermophilus</i> phage 2972 | 90 | AY699705 |
| CHPC577_43 | 63 | 7.17 | 9.45 | adenine-specific methyltransferase | <i>S. thermophilus</i> phage 7201 | 97 | AF145054 |
| CHPC577_44 | 157 | 17.82 | 9.74 | adenine-specific methyltransferase | <i>S. thermophilus</i> phage 7201 | 94 | AF145054 |
| CHPC577_45 | 163 | 19.52 | 4.46 | hypothetical protein | <i>S. thermophilus</i> phage 5093 | 68 | FJ965538 |
| CHPC577_46 | 171 | 19.67 | 7.60 | DNA-binding protein | <i>S. thermophilus</i> phage 2972 | 95 | AY699705 |
| CHPC577_47 | 272 | 31.83 | 6.30 | methylase | <i>Streptococcus</i> phage phiNJ2 | 72 | JX879087 |
| CHPC577_48 | 41 | 4.40 | 6.45 | hypothetical protein | <i>S. thermophilus</i> phage Abc2 | 95 | FJ236310 |
| CHPC577_49 | 236 | 27.79 | 9.60 | hypothetical protein | <i>S. thermophilus</i> phage 858 | 87 | EF529515 |
| CHPC577_50 | 133 | 15.71 | 9.54 | hypothetical protein | <i>S. thermophilus</i> phage ALQ13.2 | 82 | FJ226752 |

12 Proteins identified in the LCMS are written in bold; ORFs marked in dark grey – part of the core
13 genome of the subgroup II of *L. lactis* P335 phages; ORFs marked in light grey - part of the core
14 genome of known *S. thermophilus* phages; * indicates ORF located on the opposite strand.

15

16 TABLE S3 Features and putative functions of ORFs annotated for phage CHPC926.

| ORF | Size [aa] | Mol mass [kDa] | pI | Putative function | Highest identity | Identity [%] | Accession no. |
|------------|--------------|----------------------|-------|-------------------------------------|---------------------------------------|--------------|---------------|
| | | | | RASTtk | tBLASTn | tBLASTn | tBLASTn |
| CHPC926_01 | 65 | 7.73 | 5.64 | terminase, small subunit | <i>L. lactis</i> phage Tuc2009 | 98 | AF109874 |
| CHPC926_02 | 378 | 43.19 | 6.39 | terminase, large subunit | <i>L. lactis</i> phage TP901-1 | 99 | AF304433 |
| CHPC926_03 | 447 | 51.57 | 4.39 | portal protein | <i>L. lactis</i> phage ul36.k1 | 93 | DQ394806 |
| CHPC926_04 | 348 | 39.79 | 7.93 | minor capsid protein | <i>L. lactis</i> phage Tuc2009 | 94 | AF109874 |
| CHPC926_05 | 200 | 22.21 | 4.64 | capsid and scaffold protein | <i>L. lactis</i> phage TP901-1 | 96 | X84706 |
| CHPC926_06 | 288 | 31.33 | 5.83 | major capsid protein | <i>L. lactis</i> phage ul36 | 93 | AF349457 |
| CHPC926_07 | 64 | 6.35 | 4.71 | major tail protein | <i>L. lactis</i> phage ul36 | 98 | AF349457 |
| CHPC926_08 | 111 | 12.89 | 4.61 | hypothetical protein | <i>L. lactis</i> subsp. cremoris SK11 | 99 | CP000425 |
| CHPC926_09 | 104 | 12.18 | 4.56 | hypothetical protein | <i>L. lactis</i> phage ul36 | 96 | AF349457 |
| CHPC926_10 | 109 | 11.98 | 10.34 | capsid and scaffold protein | <i>L. lactis</i> phage Tuc2009 | 96 | AF109874 |
| CHPC926_11 | 130 | 14.79 | 6.53 | capsid and scaffold protein | <i>L. lactis</i> phage Tuc2009 | 95 | AF109874 |
| CHPC926_12 | 166 | 18.26 | 4.57 | tail protein | <i>L. lactis</i> phage ul36 | 98 | AF349457 |
| CHPC926_13 | 117 | 13.34 | 4.82 | hypothetical protein | <i>L. lactis</i> phage ul36 | 97 | AF349457 |
| CHPC926_14 | 90 | 10.73 | 10.27 | hypothetical protein | <i>L. lactis</i> phage P335 | 100 | DQ838728 |
| CHPC926_15 | 738 | 78.70 | 9.73 | tape-measure protein | <i>L. lactis</i> phage ul36.k1 | 96 | DQ394806 |
| CHPC926_16 | 254 | 29.17 | 5.83 | capsid and scaffold protein | <i>L. lactis</i> subsp. cremoris SK11 | 94 | CP000425 |
| CHPC926_17 | 911 | 100.96 | 5.74 | hypothetical protein | <i>L. lactis</i> phage P335 | 72 | DQ838728 |
| CHPC926_18 | 648 | 71.59 | 5.59 | upper baseplate protein | <i>L. lactis</i> phage Tuc2009 | 90 | AF109874 |
| CHPC926_19 | 139 | 15.63 | 9.57 | transcription termination factor | <i>S. salivarius</i> JIM8777 | 74 | FR873482 |
| CHPC926_20 | 81 | 8.76 | 9.84 | holin | <i>S. thermophilus</i> phage TP-778L | 88 | HG380752 |
| CHPC926_21 | 201 | 21.79 | 4.45 | lysin | <i>S. thermophilus</i> phage S92 | 94 | AF148563 |
| CHPC926_22 | 55 | 6.12 | 10.31 | endonuclease | <i>S. thermophilus</i> phage S92 | 100 | AF148563 |
| CHPC926_23 | 76 | 8.61 | 3.72 | lysin | <i>S. thermophilus</i> phage ST64 | 100 | AF148562 |
| CHPC926_24 | 68 | 7.59 | 9.20 | cro-like protein | <i>S. thermophilus</i> phage SK778 | 100 | HG917969 |
| CHPC926_25 | 315 | 36.41 | 4.99 | hypothetical protein | <i>S. thermophilus</i> phage ALQ13.2 | 97 | FJ226752 |

| | | | | | | | |
|-------------------|------------|--------------|-------------|-------------------------------------|---|-----------|-----------------|
| CHPC926_26 | 181 | 20.99 | 9.89 | antirepressor protein | <i>S. thermophilus</i> phage 5093 | 95 | FJ965538 |
| CHPC926_27 | 70 | 8.23 | 9.42 | transcription regulator | <i>S. thermophilus</i> phage ALQ13.2 | 100 | FJ226752 |
| CHPC926_28 | 47 | 5.48 | 10.41 | hypothetical protein | <i>S. thermophilus</i> phage DT1 | 86 | AF085222 |
| CHPC926_29 | 288 | 33.37 | 4.69 | replication initiation protein | <i>S. thermophilus</i> phage Abc2 | 94 | FJ236310 |
| CHPC926_30 | 261 | 30.53 | 9.12 | DNA helicase loader | <i>S. thermophilus</i> phage 7201 | 94 | AF145054 |
| CHPC926_31 | 66 | 7.86 | 5.53 | hypothetical protein | <i>S. thermophilus</i> phage Abc2 | 77 | FJ236310 |
| CHPC926_32 | 276 | 30.79 | 4.37 | recombinase | <i>Streptococcus</i> phage phi30c | 62 | KC348599 |
| CHPC926_33 | 279 | 32.53 | 6.41 | hypothetical protein | <i>Streptococcus</i> phage phi5218 | 62 | KC348600 |
| CHPC926_34 | 149 | 16.59 | 5.92 | single-stranded DNA-binding protein | <i>S. thermophilus</i> phage Abc2 | 90 | FJ236310 |
| CHPC926_35 | 154 | 18.10 | 10.03 | holliday junction resolvase | <i>S. thermophilus</i> phage Abc2 | 93 | FJ236310 |
| CHPC926_36 | 79 | 9.09 | 9.59 | hypothetical protein | <i>S. thermophilus</i> phage Abc2 | 89 | FJ236310 |
| CHPC926_37 | 58 | 6.52 | 8.48 | hypothetical protein | <i>S. thermophilus</i> phage 858 | 91 | EF529515 |
| CHPC926_38 | 51 | 6.13 | 5.01 | hypothetical protein | <i>S. thermophilus</i> phage DT1 | 93 | AF085222 |
| CHPC926_39 | 128 | 14.36 | 8.98 | hypothetical protein | <i>S. thermophilus</i> phage Abc2 | 94 | FJ236310 |
| CHPC926_40 | 117 | 13.25 | 4.67 | DNA-binding protein | <i>S. thermophilus</i> phage 5093 | 93 | FJ965538 |
| CHPC926_41 | 51 | 5.54 | 9.54 | hypothetical protein | <i>Streptococcus</i> phage 20617 | 94 | HG424323 |
| CHPC926_42 | 236 | 27.70 | 9.90 | hypothetical protein | <i>S. thermophilus</i> phage Sfi11 | 90 | AF158600 |
| CHPC926_43 | 150 | 17.33 | 7.90 | hypothetical protein | <i>S. pseudopneumoniae</i> IS7493 | 51 | CP002925 |
| CHPC926_44 | 161 | 18.57 | 9.42 | hypothetical protein | <i>L. lactis</i> phage P335 | 92 | DQ838728 |

- 17 Proteins identified in the LCMS are written in bold; ORFs marked in dark grey – part of the core
- 18 genome of the subgroup II of *L. lactis* P335 phages; ORFs marked in light grey - part of the core
- 19 genome of known *S. thermophilus* phages.

20 TABLE S4 Features and putative functions of ORFs annotated for phage CHPC1151.

| ORF | Size [aa] | Mol mass [kDa] | pI | Putative function RASTtk | Highest identity | Identity [%] | Accession no. |
|--------------------|--------------|----------------------|--------------|--------------------------------|--|--------------|---------------|
| | | | | | tBLASTn | tBLASTn | tBLASTn |
| CHPC1151_01 | 139 | 16.24 | 9.02 | hypothetical protein | <i>S. thermophilus</i> phage 5093 | 99 | FJ965538 |
| CHPC1151_02 | 149 | 16.94 | 6.05 | terminase, small subunit | <i>S. thermophilus</i> phage 5093 | 100 | FJ965538 |
| CHPC1151_03 | 435 | 50.53 | 6.52 | terminase, large subunit | <i>S. thermophilus</i> phage 5093 | 100 | FJ965538 |
| CHPC1151_04 | 487 | 55.13 | 4.48 | minor capsid protein | <i>S. thermophilus</i> phage 5093 | 99 | FJ965538 |
| CHPC1151_05 | 408 | 46.96 | 8.95 | minor capsid protein | <i>S. thermophilus</i> phage 5093 | 100 | FJ965538 |
| CHPC1151_06 | 206 | 22.94 | 4.65 | capsid and scaffold protein | <i>S. thermophilus</i> phage 5093 | 100 | FJ965538 |
| CHPC1151_07 | 282 | 30.10 | 4.63 | major capsid protein | <i>S. thermophilus</i> phage 5093 | 100 | FJ965538 |
| CHPC1151_08 | 62 | 6.82 | 7.54 | transcription terminator | <i>S. thermophilus</i> phage 5093 | 100 | FJ965538 |
| CHPC1151_09 | 130 | 14.73 | 4.93 | hypothetical protein | <i>S. thermophilus</i> phage 5093 | 99 | FJ965538 |
| CHPC1151_10 | 112 | 12.96 | 8.65 | minor capsid protein | <i>S. thermophilus</i> phage 5093 | 100 | FJ965538 |
| CHPC1151_11 | 120 | 13.19 | 10.61 | minor capsid protein | <i>S. thermophilus</i> phage 5093 | 99 | FJ965538 |
| CHPC1151_12 | 135 | 15.16 | 4.00 | minor capsid protein | <i>S. thermophilus</i> phage 5093 | 100 | FJ965538 |
| CHPC1151_13 | 168 | 18.62 | 4.59 | major tail protein | <i>S. thermophilus</i> phage 5093 | 98 | FJ965538 |
| CHPC1151_14 | 121 | 13.41 | 4.33 | hypothetical protein | <i>S. thermophilus</i> phage 5093 | 100 | FJ965538 |
| CHPC1151_15 | 220 | 25.74 | 4.52 | hypothetical protein | <i>S. thermophilus</i> phage 5093 | 100 | FJ965538 |
| CHPC1151_16 | 1529 | 154.90 | 10.21 | tape-measure protein | <i>S. thermophilus</i> phage 5093 | 99 | FJ965538 |
| CHPC1151_17 | 240 | 27.99 | 4.93 | hypothetical protein | <i>S. thermophilus</i> phage 5093 | 99 | FJ965538 |
| CHPC1151_18 | 509 | 58.10 | 6.91 | tape-measure protein | <i>S. thermophilus</i> phage 5093 | 99 | FJ965538 |
| CHPC1151_19 | 819 | 91.69 | 6.12 | hypothetical protein | <i>S. thermophilus</i> phage 5093 | 100 | FJ965538 |
| CHPC1151_20 | 92 | 10.82 | 7.55 | holin | <i>S. thermophilus</i> phage 5093 | 98 | FJ965538 |
| CHPC1151_21 | 81 | 8.85 | 9.16 | holin | <i>S. thermophilus</i> phage ALQ13.2 | 89 | FJ226752 |
| CHPC1151_22 | 201 | 21.86 | 4.60 | lysin | <i>S. thermophilus</i> phage 7201 | 95 | AF145054 |
| CHPC1151_23 | 62 | 6.91 | 10.19 | endonuclease | <i>S. thermophilus</i> phage S92 | 95 | AF148563 |
| CHPC1151_24 | 76 | 8.67 | 3.87 | lysin | <i>S. thermophilus</i> phage 2972 | 100 | AY699705 |
| CHPC1151_25 | 68 | 7.64 | 10.27 | cro-like protein | <i>S. thermophilus</i> phage DSM20617 | 85 | HG917971 |
| CHPC1151_26 | 225 | 26.02 | 7.49 | hypothetical protein | <i>S. thermophilus</i> phage ALQ13.2 | 92 | FJ226752 |

| | | | | | | | |
|-------------|-----|-------|-------|---|---|-----|----------|
| CHPC1151_27 | 70 | 8.07 | 7.55 | hypothetical protein | <i>S. thermophilus</i> phage phiBHN167 | 90 | HF563658 |
| CHPC1151_28 | 249 | 28.83 | 9.79 | antirepressor | <i>S. agalactiae</i> ILRI005 | 70 | HF952105 |
| CHPC1151_29 | 64 | 7.84 | 10.59 | hypothetical protein | <i>S. thermophilus</i> phage 20617 | 72 | HG424323 |
| CHPC1151_30 | 292 | 33.83 | 6.19 | replication initiation protein | <i>S. thermophilus</i> phage 5093 | 100 | FJ965538 |
| CHPC1151_31 | 261 | 30.44 | 8.69 | DNA helicase loader | <i>S. thermophilus</i> phage 7201 | 97 | AF145054 |
| CHPC1151_32 | 61 | 7.22 | 4.50 | hypothetical protein | <i>S. thermophilus</i> phage 5093 | 81 | FJ965538 |
| CHPC1151_33 | 308 | 35.22 | 4.89 | phenylalanyl-tRNA synthetase | <i>S. thermophilus</i> phage K13 | 84 | HG799496 |
| CHPC1151_34 | 324 | 37.67 | 4.65 | hypothetical protein | <i>S. thermophilus</i> phage 5093 | 82 | FJ965538 |
| CHPC1151_35 | 152 | 16.73 | 5.21 | single-stranded DNA- binding protein | <i>S. thermophilus</i> phage Abc2 | 82 | FJ236310 |
| CHPC1151_36 | 154 | 18.06 | 9.88 | holliday junction resolvase | <i>S. thermophilus</i> phage 20617 | 94 | HG424323 |
| CHPC1151_37 | 91 | 10.55 | 8.71 | hypothetical protein | <i>S. thermophilus</i> phage TP-778L | 88 | HG380752 |
| CHPC1151_38 | 57 | 6.38 | 9.11 | hypothetical protein | <i>S. thermophilus</i> phage TP-J34 | 86 | HE861935 |
| CHPC1151_39 | 53 | 6.54 | 5.69 | hypothetical protein | <i>S. thermophilus</i> phage 5093 | 96 | FJ965538 |
| CHPC1151_40 | 56 | 6.71 | 4.41 | hypothetical protein | unknown | - | - |
| CHPC1151_41 | 38 | 4.45 | 4.37 | hypothetical protein | <i>S. thermophilus</i> phage 20617 | 81 | HG424323 |
| CHPC1151_42 | 194 | 23.15 | 4.50 | hypothetical protein | <i>S. thermophilus</i> phage 5093 | 76 | FJ965538 |
| CHPC1151_43 | 171 | 19.70 | 5.41 | DNA-binding protein | <i>S. thermophilus</i> phage 5093 | 94 | FJ965538 |
| CHPC1151_44 | 288 | 31.93 | 8.05 | DNA-cytosine methyltransferase | <i>S. agalactiae</i> 2603V/R | 87 | AE009948 |
| CHPC1151_45 | 53 | 5.67 | 8.46 | hypothetical protein | <i>S. thermophilus</i> phage Abc2 | 92 | FJ236310 |
| CHPC1151_46 | 236 | 27.74 | 9.53 | hypothetical protein | <i>S. thermophilus</i> phage 7201 | 91 | AF145054 |

21 Proteins identified in the LCMS are written in bold; ORFs marked in dark grey – the core
22 genome of *S. thermophilus* phages 5093 and CHPC1151; ORFs marked in light grey – part of the
23 core genome of known *S. thermophilus* phages.

24