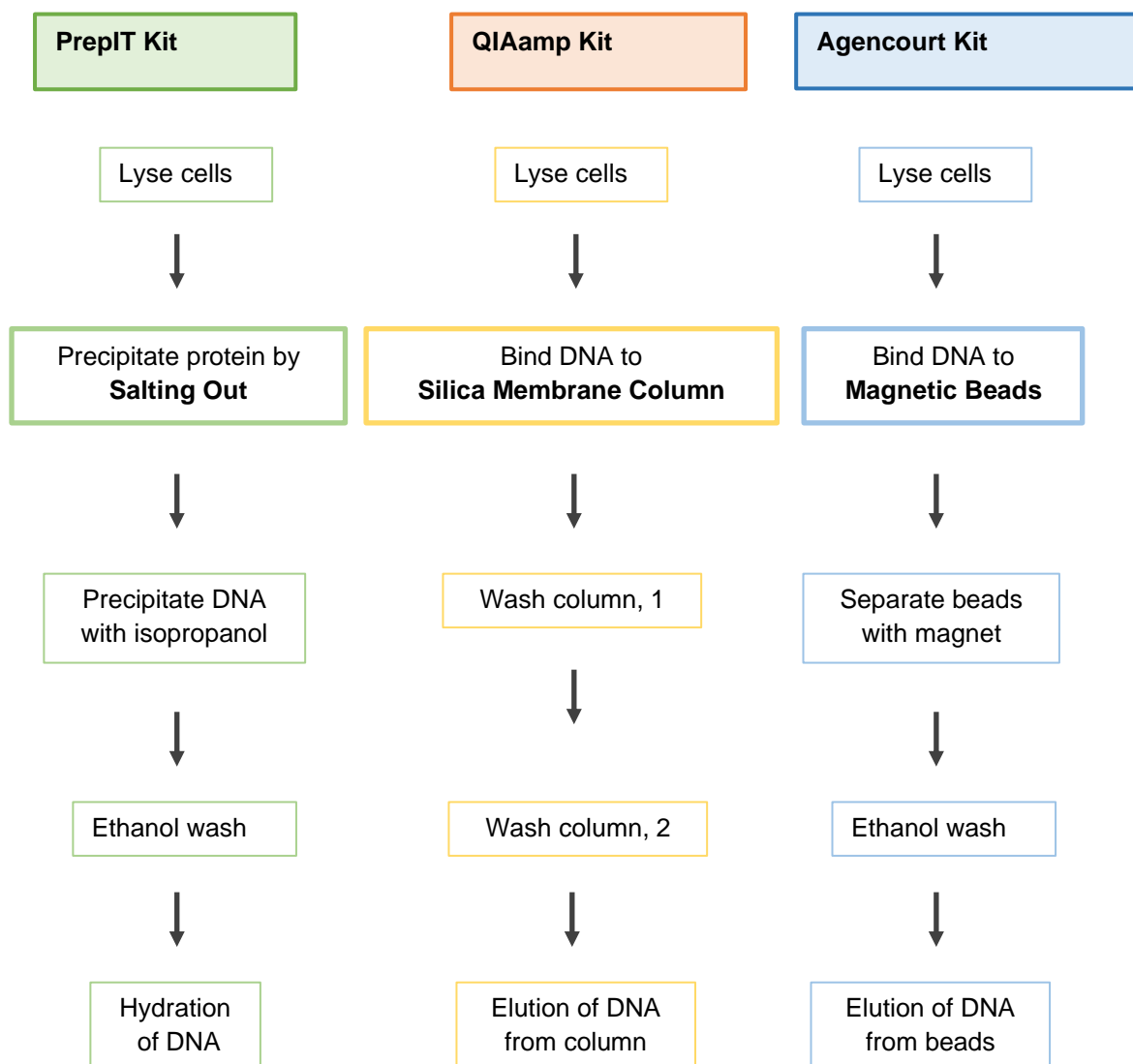




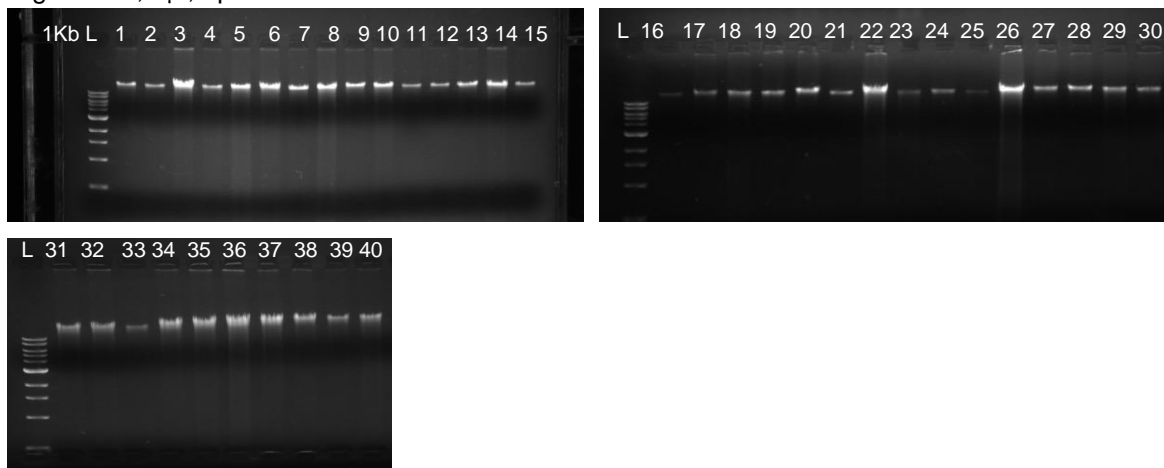
### Supplemental Material

**Figure S1:** *Three DNA Extraction Techniques, described in main text.*

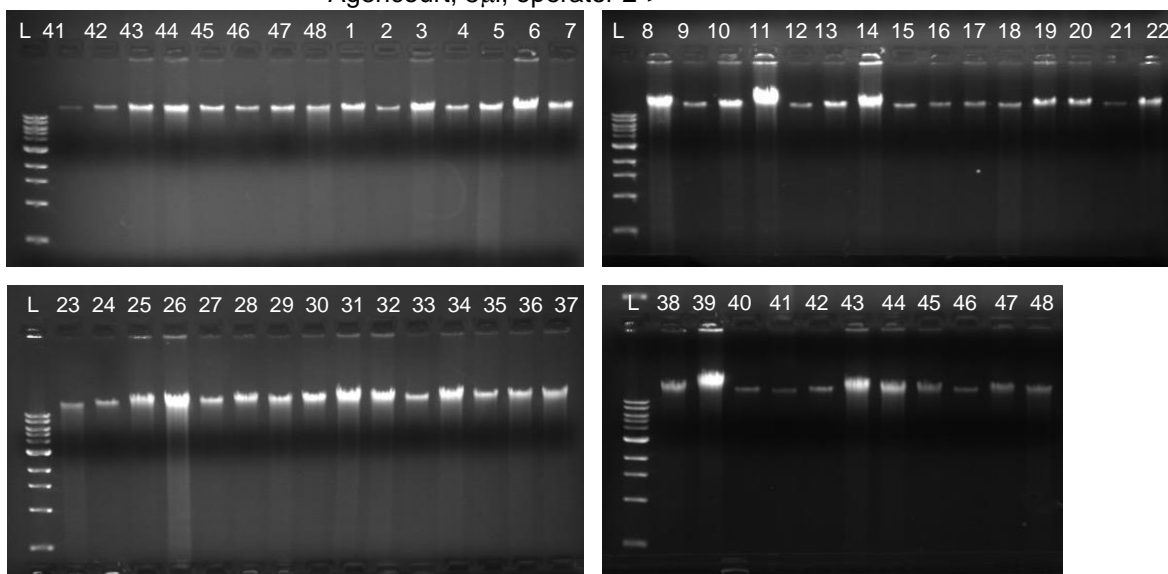


**Figure S2:** *Electrophoresis of each DNA sample on .8% Agarose gels.*

Agencourt, 5 $\mu$ l, operator 1->



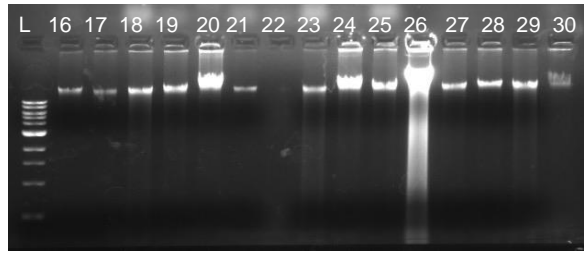
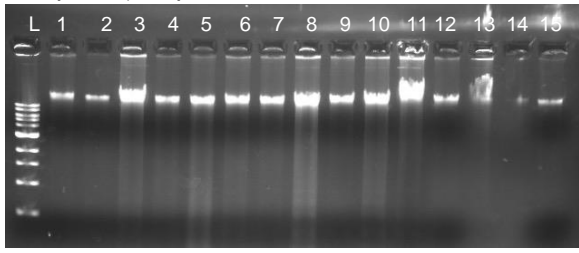
Agencourt, 5 $\mu$ l, operator 2->



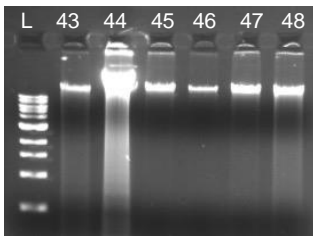
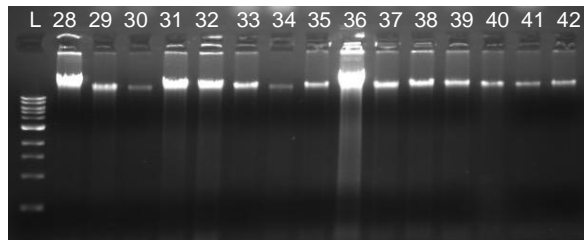
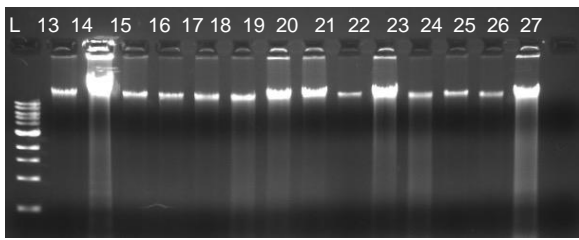
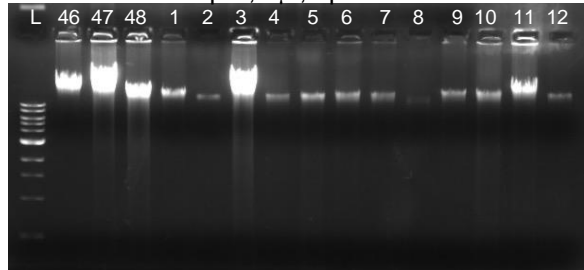
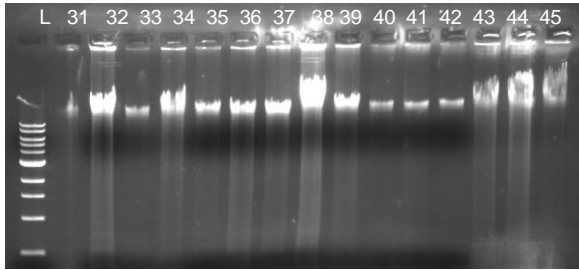
Supplementary File (S-3)

*Impact of DNA Extraction Methods on Quantitative PCR Telomere Length Assay Precision in Human Saliva Samples*

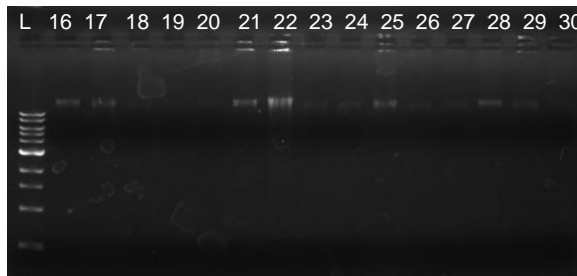
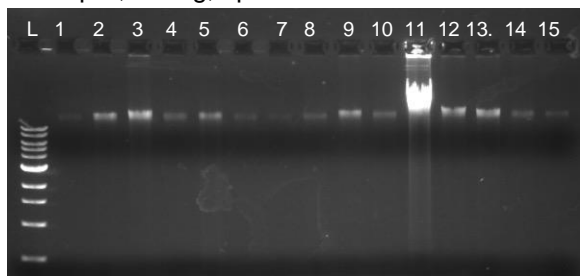
PrepIT, 5 $\mu$ l, operator 2->



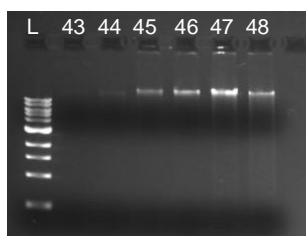
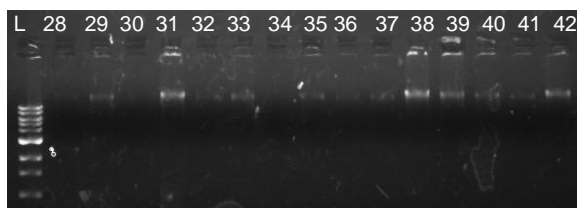
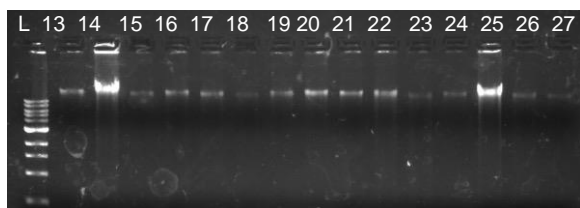
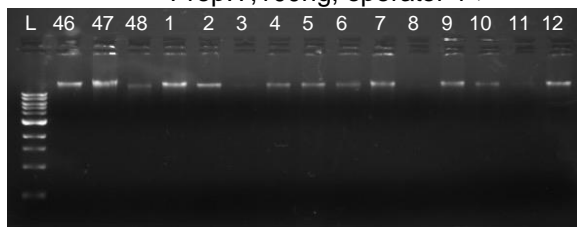
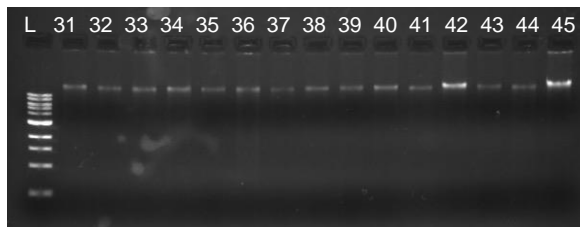
PrepIT, 5 $\mu$ l, operator 1->



PrepIT, 100ng, operator 2->



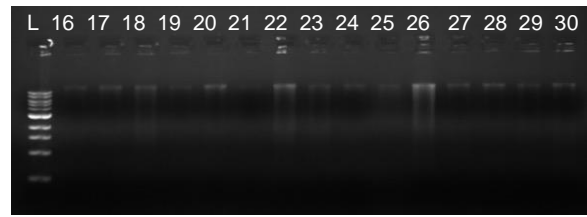
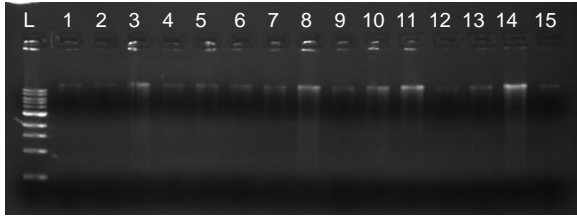
PrepIT, 100ng, operator 1->



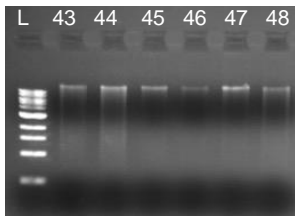
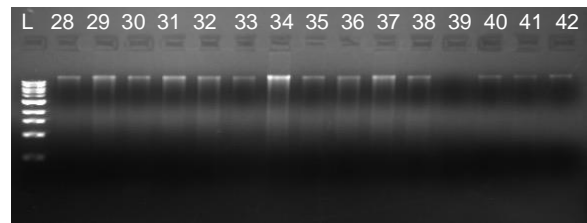
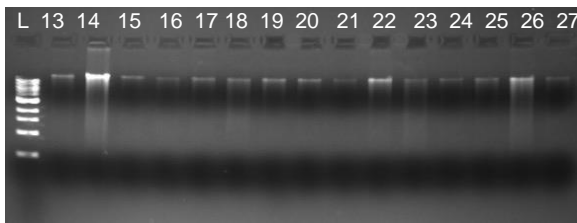
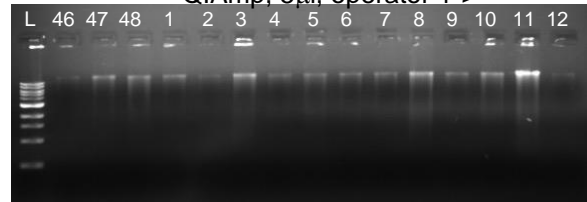
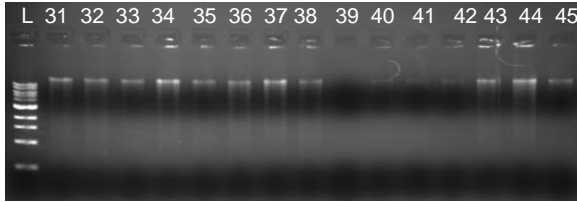
Supplementary File (S-5)

*Impact of DNA Extraction Methods on Quantitative PCR Telomere Length Assay Precision in Human Saliva Samples*

QIAmp, 5µl, operator 2->



QIAmp, 5µl, operator 1->

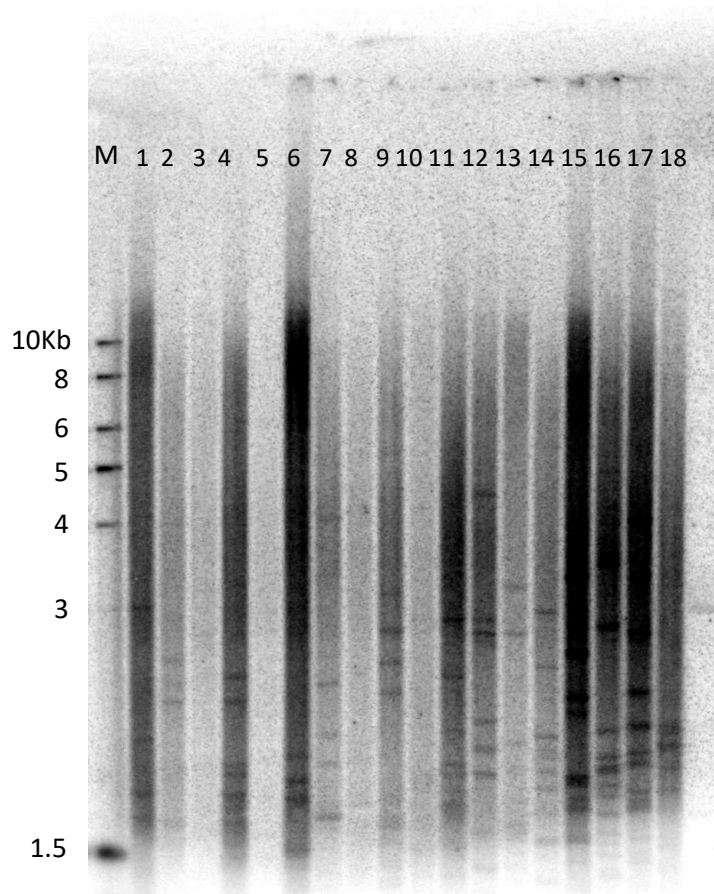


**Figure S3.**

TRF analysis of 18 Agencourt-prepared saliva DNA extracts, carried out as described in Kimura *et.al.*, 2010. Right panel is a phosphorimage of a TRF gel, with marker fragments (M) labeled on left and lanes numbered, 1-18. Left table describes corresponding lane id, sample id, calculated Telomere Restriction Fragment length in base pairs, and corresponding T/S qPCR values.

**Figure S3.:** *Example of TRF (Southern blot) with comparison to T/S values*

| TRF vs T/S for Agencourt samples |           |        |               |
|----------------------------------|-----------|--------|---------------|
| lane id                          | sample id | TRF bp | T/S Agencourt |
| 1                                | 26        | 3742   | 1.81          |
| 2                                | 27        | 3643   | 0.95          |
| 3                                | 28        | 4022   | 0.94          |
| 4                                | 29        | 3502   | 1.36          |
| 5                                | 30        | 4044   | 0.95          |
| 6                                | 31        | 3959   | 1.53          |
| 7                                | 32        | 3755   | 0.95          |
| 8                                | 34        | 3759   | 1.03          |
| 9                                | 35        | 3692   | 1.03          |
| 10                               | 36        | 3588   | 1.26          |
| 11                               | 37        | 3635   | 1.16          |
| 12                               | 38        | 3779   | 1.11          |
| 13                               | 39        | 4086   | no DNA        |
| 14                               | 43        | 3709   | 1.08          |
| 15                               | 44        | 3804   | 1.50          |
| 16                               | 45        | 3831   | 0.86          |
| 17                               | 47        | 3926   | 1.09          |
| 18                               | 48        | 3653   | 1.21          |



## Supplementary File (S-7)

*Impact of DNA Extraction Methods on Quantitative PCR Telomere Length Assay Precision in Human Saliva Samples***Table S1:** *Saliva sample demographic data*

| Blackburn ID | rid    | role   | related to | sal_date | age | sex    | race        |
|--------------|--------|--------|------------|----------|-----|--------|-------------|
| 1            | 28702  | child  | 5          | 2/5/16   | 13  | Male   | White       |
| 2            | 21802  | child  |            | 1/23/16  | 16  | Female | White       |
| 3            | 16601  | mother |            | 11/20/15 | 39  | Female | White       |
| 4            | 19201  | mother | 33         | 2/23/16  | 38  | Female | White       |
| 5            | 28701  | mother | 1          | 2/5/16   | 37  | Female | White       |
| 6            | 20001  | mother |            | 12/4/15  | 38  | Female | White       |
| 7            | 17901  | mother |            | 1/16/16  | 38  | Female | White       |
| 8            | 27401  | mother |            | 2/5/16   | 39  | Female | White       |
| 9            | 14901  | mother |            | 2/29/16  | 38  | Female | White       |
| 10           | 1101   | mother |            | 1/9/16   | 38  | Female | White       |
| 11           | 13701  | mother |            | 2/2/16   | 37  | Female | Black       |
| 12           | 4203   | child  | 26         | 11/30/15 | 9   | Male   | Multiracial |
| 13           | 3201   | mother | 41         | 2/6/16   | 39  | Female | White       |
| 14           | 13601  | mother |            | 11/30/15 | 39  | Female | Black       |
| 15           | 16302  | child  | 20         | 1/28/16  | 14  | Male   | White       |
| 16           | 5001   | mother |            | 1/23/16  | 38  | Female | White       |
| 17           | 44001  | mother |            | 1/30/16  | 38  | Female | Black       |
| 18           | 27901  | mother |            | 2/19/16  | 39  | Female | White       |
| 19           | 6302   | child  | 25         | 12/12/15 | 13  | Female | Black       |
| 20           | 16301  | mother | 15         | 1/28/16  | 37  | Female | White       |
| 21           | 21801  | mother |            | 1/23/16  | 39  | Female | White       |
| 22           | 32001  | mother |            | 3/11/16  | 38  | Female | White       |
| 23           | 35501  | mother |            | 2/27/16  | 38  | Female | Black       |
| 24           | 5101   | mother |            | 1/21/16  | 39  | Female | White       |
| 25           | 6301   | mother | 19         | 12/12/15 | 39  | Female | Black       |
| 26           | 4201   | mother | 12         | 11/30/15 | 39  | Female | White       |
| 27           | 18601  | mother |            | 2/16/16  | 39  | Female | White       |
| 28           | 24701  | mother |            | 3/3/16   | 38  | Female | White       |
| 29           | 24002  | child  |            | 2/26/16  | 15  | Female | White       |
| 30           | 16101  | mother |            | 3/12/16  | 39  | Female | White       |
| 31           | 43602  | child  |            | 4/1/16   | 13  | Female | Multiracial |
| 32           | 15701  | mother |            | 3/12/16  | 39  | Female | White       |
| 33           | 19203  | child  | 4          | 2/23/16  | 12  | Female | Multiracial |
| 34           | 39501  | mother |            | 2/27/16  | 38  | Female | White       |
| 35           | 24301  | mother | 39         | 3/16/16  | 40  | Female | White       |
| 36           | 6601   | mother |            | 3/7/16   | 38  | Female | Black       |
| 37           | 29001  | mother |            | 2/26/16  | 41  | Female | White       |
| 38           | 200201 | mother |            | 3/12/16  | 37  | Female | White       |
| 39           | 24303  | child  | 35         | 3/16/16  | 7   | Female | NA          |
| 40           | 36401  | mother |            | 4/5/16   | 38  | Female | White       |
| 41           | 3203   | child  | 13         | 2/6/16   | 14  | Female | White       |
| 42           | 24601  | mother |            | 3/7/16   | 39  | Female | White       |
| 43           | 31601  | mother |            | 2/29/16  | 38  | Female | White       |
| 44           | 24501  | mother |            | 3/11/16  | 39  | Female | White       |
| 45           | 42601  | mother |            | 3/16/16  | 38  | Female | White       |
| 46           | 31401  | mother |            | 2/13/16  | 38  | Female | White       |
| 47           | 4601   | mother |            | 3/17/16  | 39  | Female | Black       |
| 48           | 26001  | mother |            | 3/11/16  | 37  | Female | White       |

**Table S2:** Complete list of DNA measurements, arranged by method.

| NanoDrop<br>Sample ID | Agencourt<br>Operator 1 |         |         | Agencourt<br>Operator 2 |          |         |
|-----------------------|-------------------------|---------|---------|-------------------------|----------|---------|
|                       | [DNA]<br>ng// $\mu$ l   | 260/280 | 260/230 | [DNA]                   | A260/280 | 260/230 |
| 1                     | 21.2                    | 1.93    | 2.38    | 29.3                    | 1.93     | 2.34    |
| 2                     | 12.9                    | 1.97    | 2.29    | 13                      | 1.97     | 1.74    |
| 3                     | 51.8                    | 1.94    | 2.29    | 53.6                    | 1.95     | 2.15    |
| 4                     | 19.4                    | 1.97    | 2.45    | 22.8                    | 1.94     | 2.41    |
| 5                     | 37                      | 1.94    | 2.46    | 52.4                    | 1.94     | 2.42    |
| 6                     | 36.8                    | 1.95    | 2.39    | 120                     | 1.87     | 1.56    |
| 7                     | 24.3                    | 1.9     | 2.2     | 39.6                    | 1.92     | 2.22    |
| 8                     | 54.3                    | 1.94    | 2.39    | 122                     | 1.93     | 2.34    |
| 9                     | 24.1                    | 1.94    | 2.52    | 25.2                    | 1.92     | 2.29    |
| 10                    | 36.5                    | 1.92    | 2.16    | 70.9                    | 1.9      | 1.94    |
| 11                    | 11.2                    | 2.01    | 2.87    | 132.5                   | 1.92     | 2.3     |
| 12                    | 9.8                     | 1.97    | 3.28    | 14.5                    | 1.94     | 2.17    |
| 13                    | 19.6                    | 2.01    | 2.84    | 34.6                    | 1.94     | 2.34    |
| 14                    | 39.9                    | 1.93    | 2.07    | 100.6                   | 1.93     | 2.09    |
| 15                    | 14.3                    | 2.09    | 2.97    | 22.7                    | 1.94     | 2.28    |
| 16                    | 8.2                     | 1.97    | 3.57    | 21.8                    | 1.92     | 2.33    |
| 17                    | 15.7                    | 2.01    | 2.77    | 32.8                    | 1.9      | 1.84    |
| 18                    | 29.9                    | 1.97    | 2.48    | 48.1                    | 1.94     | 2.26    |
| 19                    | 23.9                    | 2.15    | 2.65    | 54.3                    | 1.93     | 2.27    |
| 20                    | 26.8                    | 2.03    | 2.42    | 40.5                    | 1.97     | 2.39    |
| 21                    | 8.7                     | 2.12    | 3.06    | 11.9                    | 1.92     | 2.14    |
| 22                    | 47.6                    | 1.96    | 2.3     | 62.2                    | 1.92     | 2.29    |
| 23                    | 12                      | 2.01    | 2.59    | 39.5                    | 1.94     | 2.36    |
| 24                    | 10.4                    | 2.05    | 3.19    | 21.6                    | 1.96     | 2.42    |
| 25                    | 4                       | 2.23    | 8.61    | 53.9                    | 1.91     | 2.01    |
| 26                    | 82.6                    | 1.92    | 2.11    | 148.8                   | 1.89     | 2.05    |
| 27                    | 20.7                    | 1.94    | 2.49    | 31.5                    | 1.91     | 2.28    |
| 28                    | 20.6                    | 2.17    | 2.33    | 35.7                    | 1.99     | 2.42    |
| 29                    | 27.7                    | 1.98    | 2.04    | 43.3                    | 1.92     | 2.22    |
| 30                    | 21.3                    | 1.92    | 2.06    | 48.3                    | 1.98     | 2.21    |
| 31                    | 39.9                    | 1.94    | 2.34    | 77.8                    | 1.95     | 2.15    |
| 32                    | 41.9                    | 1.94    | 2.09    | 76.3                    | 1.91     | 2.08    |
| 33                    | 11.7                    | 2.02    | 2.24    | 33.3                    | 1.96     | 2.33    |
| 34                    | 42.2                    | 1.97    | 2.28    | 73.7                    | 1.93     | 2.02    |
| 35                    | 23.5                    | 2.2     | 2.75    | 40.9                    | 1.93     | 2.26    |
| 36                    | 45.5                    | 1.94    | 2.41    | 66                      | 1.9      | 2.35    |
| 37                    | 47.9                    | 1.98    | 2.39    | 65.5                    | 1.94     | 2.32    |
| 38                    | 34.2                    | 1.94    | 2.31    | 58.1                    | 1.94     | 2.22    |
| 39                    | 0                       | 0       | 0       | 171.6                   | 1.85     | 1.77    |



Supplementary File (S-9)

*Impact of DNA Extraction Methods on Quantitative PCR Telomere Length Assay Precision in Human Saliva Samples*

|                  |                          |                |                |                          |                |                |
|------------------|--------------------------|----------------|----------------|--------------------------|----------------|----------------|
| 40               | 13.8                     | 1.98           | 1.82           | 20.2                     | 1.9            | 2.48           |
| 41               | 10.5                     | 2.09           | 2.17           | 14.9                     | 1.99           | 1.9            |
| 42               | 42.4                     | 1.97           | 2.2            | 16.9                     | 2.03           | 2.16           |
| 43               | 49.7                     | 1.94           | 2.06           | 102.5                    | 1.94           | 2.22           |
| 44               | 61.2                     | 1.94           | 2.02           | 87.7                     | 1.91           | 1.99           |
| 45               | 28                       | 1.99           | 2.59           | 41.6                     | 1.95           | 2.35           |
| 46               | 12.9                     | 2.01           | 2.96           | 18.3                     | 1.89           | 2.1            |
| 47               | 29.5                     | 1.99           | 2.24           | 44.2                     | 1.91           | 2.25           |
| 48               | 36.9                     | 1.95           | 2.36           | 55.9                     | 1.92           | 2.16           |
| <b>NanoDrop</b>  | <b>PrepIT operator 1</b> |                |                | <b>PrepIT operator 2</b> |                |                |
| <b>Sample ID</b> | <b>[DNA]</b>             | <b>260/280</b> | <b>260/230</b> | <b>[DNA]</b>             | <b>260/280</b> | <b>260/230</b> |
| 1                | 64.3                     | 1.97           | 1.33           | 279                      | 1.85           | 1.41           |
| 2                | 23.6                     | 1.96           | 1.22           | 20.2                     | 2.11           | 1.04           |
| 3                | 630.4                    | 1.93           | 1.65           | 225.4                    | 1.99           | 1.5            |
| 4                | 80.2                     | 1.97           | 1.48           | 80.8                     | 2.03           | 1.44           |
| 5                | 80.4                     | 1.91           | 1.56           | 86.8                     | 1.94           | 1.41           |
| 6                | 109.3                    | 1.94           | 1.17           | 293.9                    | 1.81           | 1.01           |
| 7                | 113.9                    | 1.93           | 1.62           | 518.5                    | 1.79           | 1.27           |
| 8                | 104.1                    | 2.04           | 1.72           | 191                      | 1.86           | 1.56           |
| 9                | 71.3                     | 1.9            | 1.22           | 72.5                     | 1.95           | 1.11           |
| 10               | 236.6                    | 1.95           | 1.39           | 263.4                    | 1.92           | 1.23           |
| 11               | 540.6                    | 1.84           | 1.73           | 43.2                     | 1.91           | 0.98           |
| 12               | 23.9                     | 1.95           | 1.58           | 23.9                     | 2.1            | 1.12           |
| 13               | 52.9                     | 1.82           | 0.91           | 26.7                     | 1.85           | 0.54           |
| 14               | 123.5                    | 1.92           | 1.38           | 540.9                    | 1.79           | 1.3            |
| 15               | 88.2                     | 1.97           | 1.45           | 67.6                     | 2.02           | 1.14           |
| 16               | 37.5                     | 1.92           | 1.37           | 33.9                     | 2.02           | 1.18           |
| 17               | 62.3                     | 1.85           | 1.09           | 34.8                     | 1.94           | 0.78           |
| 18               | 188.8                    | 1.98           | 1.64           | 191.9                    | 2              | 1.58           |
| 19               | 179.7                    | 1.99           | 1.62           | 359.9                    | 1.9            | 1.51           |
| 20               | 96.9                     | 1.94           | 1.32           | 296.2                    | 1.88           | 1.51           |
| 21               | 21.4                     | 1.88           | 1.02           | 14.4                     | 2.2            | 0.76           |
| 22               | 154.8                    | 1.94           | 1.68           | 139.4                    | 1.94           | 1.53           |
| 23               | 97                       | 1.9            | 1.1            | 97.8                     | 1.9            | 1              |
| 24               | 88.6                     | 2              | 1.48           | 69.3                     | 2.1            | 1.3            |
| 25               | 32.7                     | 1.78           | 0.67           | 67.1                     | 1.77           | 0.73           |
| 26               | 471.8                    | 1.87           | 1.33           | 424.4                    | 1.89           | 1.28           |
| 27               | 129.3                    | 1.99           | 1.51           | 138.6                    | 1.97           | 1.35           |
| 28               | 263.3                    | 1.82           | 1.39           | 69.5                     | 1.92           | 1.39           |
| 29               | 97.9                     | 1.96           | 1.49           | 93.7                     | 1.93           | 1.56           |
| 30               | 973.6                    | 1.89           | 1.64           | 307.3                    | 1.95           | 1.62           |
| 31               | 122.9                    | 1.94           | 1.63           | 79.5                     | 1.97           | 1.58           |

|                  |                          |                |                |                          |                |                |
|------------------|--------------------------|----------------|----------------|--------------------------|----------------|----------------|
| 32               | 475                      | 1.84           | 1.4            | 238.6                    | 1.94           | 1.46           |
| 33               | 70.8                     | 1.87           | 1.24           | 81.6                     | 1.83           | 1.08           |
| 34               | 914.5                    | 1.86           | 1.64           | 108.4                    | 1.89           | 1.27           |
| 35               | 108.8                    | 2.01           | 1.65           | 103.5                    | 1.96           | 1.56           |
| 36               | 477.7                    | 1.83           | 1.26           | 142.8                    | 1.88           | 0.9            |
| 37               | 184.6                    | 2.02           | 1.85           | 214.8                    | 1.98           | 1.75           |
| 38               | 165.7                    | 1.9            | 1.29           | 129.8                    | 1.9            | 1.22           |
| 39               | 661.2                    | 1.82           | 1.58           | 117.9                    | 1.96           | 1.31           |
| 40               | 44.6                     | 1.94           | 1.2            | 45.7                     | 1.9            | 1.07           |
| 41               | 70                       | 1.78           | 0.86           | 71.3                     | 1.75           | 0.79           |
| 42               | 25                       | 1.81           | 0.81           | 22.1                     | 1.85           | 0.8            |
| 43               | 672.7                    | 1.98           | 1.67           | 379                      | 2              | 1.62           |
| 44               | 188.7                    | 2.02           | 1.65           | 235                      | 1.85           | 1.25           |
| 45               | 102.7                    | 1.91           | 1.41           | 52.1                     | 1.94           | 1.36           |
| 46               | 27.4                     | 1.93           | 1.34           | 19.1                     | 1.85           | 1.06           |
| 47               | 79                       | 1.89           | 1.24           | 62                       | 1.88           | 1.14           |
| 48               | 174.9                    | 1.95           | 1.44           | 164.5                    | 1.94           | 1.33           |
| <b>NanoDrop</b>  | <b>QIAamp operator 1</b> |                |                | <b>QIAamp operator 2</b> |                |                |
| <b>Sample ID</b> | <b>[DNA]</b>             | <b>260/280</b> | <b>260/230</b> | <b>[DNA]</b>             | <b>260/280</b> | <b>260/230</b> |
| 1                | 10.3                     | 2.3            | 0.05           | 7.8                      | 2.26           | 3.31           |
| 2                | 5.6                      | 2              | -2.06          | 5.7                      | 2.2            | 2.2            |
| 3                | 21.5                     | 1.93           | 5.57           | 30                       | 1.97           | 1.76           |
| 4                | 9                        | 2.03           | 5.9            | 11.2                     | 2.18           | 1.36           |
| 5                | 18.7                     | 1.92           | 5.45           | 16.5                     | 2              | 2.36           |
| 6                | 10.3                     | 2.07           | 82.28          | 9.8                      | 2.13           | 1.27           |
| 7                | 14.8                     | 1.87           | 3.12           | 12.5                     | 1.98           | 14.28          |
| 8                | 33.7                     | 1.97           | 3              | 37.6                     | 2.01           | 0.89           |
| 9                | 8.1                      | 2.21           | 2.79           | 8.7                      | 2.03           | 4.23           |
| 10               | 21                       | 1.97           | 6.45           | 23                       | 1.93           | 2.56           |
| 11               | 52.5                     | 1.95           | 3.19           | 31.6                     | 1.94           | 2.31           |
| 12               | 4.9                      | 2.2            | -1.88          | 5.6                      | 2.31           | 1.27           |
| 13               | 12.5                     | 1.92           | 3.84           | 13.3                     | 2.04           | 1.54           |
| 14               | 57.4                     | 1.92           | 2.27           | 49.6                     | 1.96           | 2.31           |
| 15               | 7.2                      | 2.19           | -1.22          | 8.6                      | 2.22           | 2.38           |
| 16               | 5.4                      | 2.16           | -1.14          | 8.3                      | 2.19           | 9.21           |
| 17               | 10.8                     | 2.09           | 1.04           | 11.2                     | 2.06           | -191.26        |
| 18               | 15.4                     | 2              | 23.09          | 20.2                     | 1.97           | 2.39           |
| 19               | 11.8                     | 2.06           | -36.01         | 13.9                     | 2.09           | 0.51           |
| 20               | 10.5                     | 2.12           | -7.68          | 13.3                     | 2.02           | 1.92           |
| 21               | 3.8                      | 2.87           | 34.47          | 3.8                      | 2.71           | 0.93           |
| 22               | 23                       | 1.82           | 3.48           | 29.3                     | 1.99           | 2.64           |
| 23               | 16.3                     | 2.08           | 3.22           | 14.9                     | 1.98           | 2.17           |

Supplementary File (S-11)

*Impact of DNA Extraction Methods on Quantitative PCR Telomere Length Assay Precision in Human Saliva Samples*

| 24        | 9.6        | 1.95       | -22.64     | 6.2        | 2.13       | -1.36      |
|-----------|------------|------------|------------|------------|------------|------------|
| 25        | 11         | 2.05       | 3.08       | 10.4       | 2.03       | 6.12       |
| 26        | 46.9       | 1.96       | 2.96       | 45         | 1.92       | 2.7        |
| 27        | 8.8        | 2.11       | 8.79       | 11.3       | 1.88       | 1.92       |
| 28        | 8.4        | 2.23       | 2.85       | 10         | 1.97       | 2.14       |
| 29        | 21.4       | 1.97       | 3.13       | 14.6       | 1.95       | 2.49       |
| 30        | 13.9       | 2.01       | 1.9        | 18.7       | 1.91       | 1.69       |
| 31        | 18         | 1.98       | 2.58       | 23         | 1.94       | 1.96       |
| 32        | 17.5       | 1.98       | 2.9        | 24.1       | 1.91       | 2.11       |
| 33        | 8.1        | 2.18       | 19.51      | 11.6       | 2.01       | 2.37       |
| 34        | 35.2       | 1.99       | 2.3        | 21         | 1.97       | 2.05       |
| 35        | 15.5       | 2.02       | 1.59       | 11.5       | 1.98       | 1.85       |
| 36        | 17.3       | 2.03       | 4.06       | 19         | 1.93       | 2.87       |
| 37        | 22         | 1.99       | 2.53       | 24.2       | 1.91       | 3.26       |
| 38        | 13         | 2          | 2.26       | 15.8       | 1.93       | 11.64      |
| 39        | 0          | 0          | 0          | 0          | 0          | 0          |
| 40        | 5.9        | 2.09       | 1.64       | 6.2        | 1.83       | -8.76      |
| 41        | 7.3        | 2.06       | 2.47       | 7.1        | 1.73       | 33.77      |
| 42        | 5          | 2.43       | 1.9        | 6.4        | 1.73       | 2.93       |
| 43        | 23.7       | 1.97       | 2.84       | 29         | 1.9        | 2.69       |
| 44        | 32.8       | 1.9        | 2.1        | 41.2       | 1.9        | 1.82       |
| 45        | 11.1       | 2.05       | 2.88       | 13         | 1.81       | 2.62       |
| 46        | 4.9        | 2.03       | 11.83      | 5.4        | 2.11       | -3.68      |
| 47        | 15.4       | 2.04       | 2.46       | 13.2       | 1.97       | 3.49       |
| 48        | 17.5       | 2.02       | 3.49       | 20.2       | 1.93       | 0.9        |
| Picogreen | Agencourt  |            | PrepIT     |            | QIAmp      |            |
|           | Operator 1 | Operator 2 | Operator 1 | Operator 2 | Operator 1 | Operator 2 |
| Sample ID | [DNA]      | [DNA]      | [DNA]      | [DNA]      | [DNA]      | [DNA]      |
| 1         | 77.6       | 98.9       | 55.72      | 62.67      | 23.3       | 23.8       |
| 2         | 42.1       | 41.5       | 35.88      | 40.1       | 8.9        | 11.7       |
| 3         | 168.7      | 148.7      | 90.04      | 795.77     | 52.2       | 77.6       |
| 4         | 66.1       | 58.5       | 75.33      | 86.23      | 16.1       | 24.0       |
| 5         | 118.8      | 145.0      | 122.79     | 344.19     | 31.7       | 40.0       |
| 6         | 130.5      | 193.4      | 89.87      | 494.59     | 24.5       | 24.6       |
| 7         | 69.0       | 126.1      | 324.05     | 200.23     | 23.7       | 25.9       |
| 8         | 186.0      | 383.4      | 31.76      | 235.78     | 89.8       | 108.0      |
| 9         | 92.4       | 74.2       | 99.72      | 104.12     | 19.1       | 20.0       |
| 10        | 113.7      | 208.6      | 69.08      | 244.16     | 51.2       | 67.6       |
| 11        | 38.2       | 213.48     | 141.88     | 132.2      | 140.2      | 91.6       |
| 12        | 38.3       | 44.6       | 44.22      | 55.39      | 63.9       | 13.2       |
| 13        | 64.1       | 121.0      | 99.37      | 46.94      | 18.8       | 29.8       |
| 14        | 106.7      | 329.1      | 119.46     | 349.04     | 163.6      | 146.6      |
| 15        | 49.6       | 73.0       | 73.27      | 40.37      | 14.1       | 21.9       |

|                  |                   |                   |        |        |       |       |
|------------------|-------------------|-------------------|--------|--------|-------|-------|
| 16               | 18.0              | 66.5              | 54.05  | 64.69  | 10.5  | 22.4  |
| 17               | 63.7              | 99.2              | 90.55  | 46.79  | 23.1  | 23.1  |
| 18               | 120.2             | 148.6             | 145.21 | 133.08 | 38.5  | 50.8  |
| 19               | 96.0              | 176.1             | 167.6  | 944.79 | 25.6  | 19.3  |
| 20               | 85.5              | 148.6             | 124.8  | 127.37 | 22.0  | 28.0  |
| 21               | 30.5              | 37.7              | 32.33  | 99.16  | 7.0   | 16.7  |
| 22               | 68.5              | 197.4             | 270.68 | 203.5  | 53.5  | 77.2  |
| 23               | 37.3              | 102.5             | 101.37 | 113.51 | 33.2  | 16.5  |
| 24               | 33.5              | 69.7              | 41.97  | 36.26  | 10.8  | 16.4  |
| 25               | 12.5              | 139.0             | 31.49  | 120.7  | 26.8  | 0.0   |
| 26               | 211.5             | 192.7             | 993.85 | 444.94 | 137.2 | 122.5 |
| 27               | 68.1              | 90.2              | 62     | 80.26  | 18.4  | 20.2  |
| 28               | 55.0              | 119.6             | 36.92  | 101.14 | 17.8  | 15.9  |
| 29               | 75.1              | 117.3             | 185.9  | 125.83 | 44.0  | 24.5  |
| 30               | 15.3              | 137.1             | 84.12  | 70.48  | 20.1  | 34.4  |
| 31               | 66.3              | 277.2             | 201.01 | 98.35  | 33.4  | 54.3  |
| 32               | 117.8             | 218.3             | 104.72 | 216.88 | 32.7  | 41.6  |
| 33               | 34.9              | 96.0              | 76.53  | 108.74 | 19.2  | 22.0  |
| 34               | 151.4             | 214.5             | 44.25  | 119.96 | 85.4  | 47.7  |
| 35               | 84.3              | 116.7             | 56.86  | 94.89  | 23.8  | 22.4  |
| 36               | 147.2             | 182.2             | 74.88  | 185.28 | 32.9  | 40.1  |
| 37               | 153.9             | 197.6             | 100.95 | 189.35 | 33.9  | 47.9  |
| 38               | 68.4              | 180.3             | 85.66  | 113.53 | 24.7  | 29.4  |
| 39               | 0                 | 108               | 90.53  | 935.35 | 0     | 0     |
| 40               | 49.4              | 59.5              | 42.99  | 48.23  | 11.5  | 10.1  |
| 41               | 18.0              | 37.3              | 38.27  | 44.82  | 12.6  | 7.3   |
| 42               | 40.9              | 53.2              | 39.32  | 51.03  | 12.1  | 9.2   |
| 43               | 120.1             | 346.2             | 111.46 | 511.75 | 58.8  | 70.2  |
| 44               | 165.4             | 236.8             | 102.73 | 116.68 | 68.3  | 100.9 |
| 45               | 90.4              | 145.4             | 386.49 | 51.2   | 22.6  | 29.7  |
| 46               | 45.0              | 57.7              | 47.41  | 115.56 | 9.5   | 7.9   |
| 47               | 105.3             | 140.5             | 104.88 | 87.91  | 33.4  | 22.9  |
| 48               | 120.9             | 156.1             | 156.33 | 166.78 | 38.2  | 47.1  |
| <b>RNaseP</b>    | <b>Agencourt</b>  |                   |        |        |       |       |
|                  | <b>Operator</b>   |                   |        |        |       |       |
|                  | <b>Operator 1</b> | <b>Operator 2</b> |        |        |       |       |
| <b>Sample ID</b> | <b>[DNA]</b>      | <b>[DNA]</b>      |        |        |       |       |
| 1                | 23.5              |                   |        |        |       |       |
| 2                | 12.4              | 13.5              |        |        |       |       |
| 3                | 61.6              | 55.7              |        |        |       |       |
| 4                | 18.9              | 21.0              |        |        |       |       |
| 5                | 40.5              | 59.1              |        |        |       |       |
| 6                | 42.9              | 65.0              |        |        |       |       |
| 7                | 28.5              | 44.9              |        |        |       |       |

Supplementary File (S-13)

*Impact of DNA Extraction Methods on Quantitative PCR Telomere Length Assay Precision in Human Saliva Samples*

---

|    |      |       |
|----|------|-------|
| 8  | 56.4 | 61.5  |
| 9  | 26.7 | 27.0  |
| 10 | 38.7 | 79.0  |
| 11 | 13.5 | 177.4 |
| 12 | 12.1 | 14.6  |
| 13 | 23.3 | 39.7  |
| 14 | 44.9 | 124.8 |
| 15 | 18.4 | 23.5  |
| 16 | 9.3  | 15.9  |
| 17 | 14.6 | 25.7  |
| 18 | 28.3 | 39.6  |
| 19 | 27.7 | 62.7  |
| 20 | 37.9 | 53.4  |
| 21 | 10.8 | 13.0  |
| 22 | 52.1 | 74.6  |
| 23 | 11.1 | 35.5  |
| 24 | 10.1 | 18.3  |
| 25 | 4.3  | 56.8  |
| 26 | 74.6 | 148.5 |
| 27 | 19.3 | 31.6  |
| 28 | 20.9 | 47.2  |
| 29 | 26.1 | 45.7  |
| 30 | 19.6 | 52.3  |
| 31 | 41.1 | 88.9  |
| 32 | 40.5 | 80.8  |
| 33 | 11.9 | 38.9  |
| 34 | 50.3 | 94.5  |
| 35 | 24.3 | 41.8  |
| 36 | 39.5 | 56.9  |
| 37 | 52.1 | 76.5  |
| 38 | 41.6 | 63.2  |
| 39 | 0    | 184.1 |
| 40 | 14.0 | 19.9  |
| 41 | 6.9  | 13.5  |
| 42 | 14.9 | 20.3  |
| 43 | 46.6 | 111.3 |
| 44 | 63.5 | 100.5 |
| 45 | 32.1 | 50.7  |
| 46 | 18.3 | 22.2  |
| 47 | 40.3 | 53.0  |
| 48 | 37.6 | 56.2  |

---

**Table S3:** *Telomere Length (T/S average) for each DNA extract*

| Sample ID | Agencourt, T/S |            | PrepIT, T/S |            | QIAamp, T/S |            |
|-----------|----------------|------------|-------------|------------|-------------|------------|
|           | Operator 1     | Operator 2 | operator 1  | operator 2 | operator 1  | operator 2 |
| 1         | 1.26           | 1.25       | 1.38        | 1.45       | 1.84        | 1.86       |
| 2         | 1.17           | 1.24       | 1.24        | 1.29       | 1.56        | 1.63       |
| 3         | 1.22           | 1.22       | 1.26        | 1.23       | 1.49        | 1.61       |
| 4         | 1.54           | 1.52       | 1.66        | 1.64       | 1.98        | 1.93       |
| 5         | 1.36           | 1.54       | 2.03        | 1.76       | 1.91        | 1.88       |
| 6         | 1.10           | 1.06       | 1.30        | 1.46       | 1.43        | 1.63       |
| 7         | 1.11           | 1.15       | 1.19        | 1.33       | 1.69        | 1.80       |
| 8         | 1.13           | 1.12       | 2.21        | 1.23       | 1.45        | 1.46       |
| 9         | 1.17           | 1.19       | 1.32        | 1.26       | 1.45        | 1.61       |
| 10        | 1.00           | 0.99       | 1.15        | 0.94       | 1.35        | 1.38       |
| 11        | 1.32           | 1.19       | 1.59        | 1.16       | 1.33        | 1.41       |
| 12        | 1.22           | 1.40       | 1.40        | 1.37       | 2.07        | 1.97       |
| 13        | 0.87           | 0.95       | 1.10        | 0.99       | 1.22        | 1.34       |
| 14        | 1.46           | 1.46       | 1.03        | 1.60       | 1.60        | 1.83       |
| 15        | 1.38           | 1.42       | 1.63        | 2.24       | 2.28        | 2.30       |
| 16        | 1.14           | 1.01       | 1.33        | 1.23       | 1.47        | 1.71       |
| 17        | 1.00           | 0.99       | 1.16        | 1.29       | 1.31        | 1.42       |
| 18        | 1.47           | 1.41       | 1.66        | 1.65       | 1.74        | 1.69       |
| 19        | 1.50           | 1.42       | 1.54        | 1.84       | 2.15        | 2.31       |
| 20        | 1.13           | 1.14       | 1.22        | 1.21       | 1.44        | 1.60       |
| 21        | 0.99           | 1.03       | 1.04        | 1.15       | 1.40        | 1.47       |
| 22        | 1.08           | 1.03       | 1.23        | 1.00       | 1.26        | 1.48       |
| 23        | 1.40           | 1.33       | 1.76        | 1.55       | 1.40        | 1.41       |
| 24        | 0.75           | 0.76       | 0.88        | 0.90       | 1.09        | 1.10       |
| 25        | 1.07           | 1.22       | 1.25        | 1.27       | 1.57        | 1.68       |
| 26        | 1.81           | 1.86       | 2.19        | 2.12       | 2.04        | 2.12       |
| 27        | 0.95           | 1.03       | 1.10        | 0.99       | 1.41        | 1.20       |
| 28        | 0.94           | 0.92       | 1.22        | 1.02       | 1.23        | 1.11       |
| 29        | 1.36           | 1.11       | 1.30        | 1.30       | 1.47        | 1.53       |
| 30        | 0.95           | 0.83       | 1.02        | 0.86       | 1.28        | 1.32       |
| 31        | 1.53           | 1.49       | 1.70        | 1.81       | 2.07        | 2.13       |
| 32        | 0.95           | 0.88       | 1.24        | 1.05       | 1.22        | 1.21       |
| 33        | 2.04           | 1.98       | 2.44        | 2.07       | 3.53        | 2.91       |
| 34        | 1.03           | 1.10       | 1.65        | 1.34       | 1.43        | 1.50       |
| 35        | 1.03           | 1.00       | 1.13        | 1.11       | 1.56        | 1.37       |
| 36        | 1.26           | 1.30       | 1.49        | 1.43       | 1.54        | 1.63       |
| 37        | 1.16           | 1.10       | 1.28        | 1.25       | 1.64        | 1.49       |
| 38        | 1.11           | 1.04       | 1.00        | 1.15       | 1.56        | 1.58       |
| 39        | no DNA         | 1.37       | 1.44        | 1.57       | no DNA      | no DNA     |
| 40        | 1.21           | 1.08       | 1.28        | 1.13       | 1.54        | 1.56       |
| 41        | 1.39           | 1.37       | 1.43        | 1.36       | 1.91        | 1.75       |
| 42        | 1.05           | 0.98       | 1.15        | 1.00       | 1.27        | 1.32       |
| 43        | 1.08           | 0.98       | 1.61        | 1.07       | 1.44        | 1.43       |
| 44        | 1.50           | 1.48       | 1.94        | 1.89       | 2.04        | 2.06       |
| 45        | 0.86           | 0.86       | 0.93        | 0.86       | 1.43        | 1.32       |
| 46        | 0.92           | 0.92       | 1.17        | 1.10       | 1.28        | 1.46       |
| 47        | 1.09           | no DNA     | 1.07        | 1.08       | 1.35        | 1.53       |
| 48        | 1.21           | low DNA    | 1.37        | 1.31       | 1.48        | 1.34       |