Supplementary Table S1

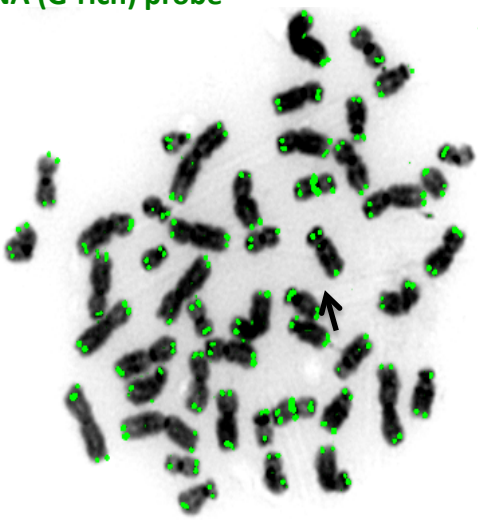
	IMR90	Chimpanzee
1p	2,454	2,85
1q	2,708	2,84
2p	4,450	4,11
2q	3,157	3,30
3p	4,125	3,50
3q	2,338	2,96
4p	3,765	3,75
4q	4,451	3,52
5p	2,694	3,66
5q	3,771	2,88
6p	3,334	3,72
6q	4,152	3,18
7p	2,402	4,22
7q	4,210	3,06
8p	3,719	4,40
8q	3,176	2,91
9p	2,484	4,14
9q	3,206	4,44
10p	2,757	3,93
10q	4,028	3,39
11p	2,533	4,55
11q	4,240	4,39
12p	2,442	3,97
12q	3,564	3,46
16p	2,530	4,25
16q	2,976	4,45
17p	2,783	4,72
17q	2,114	4,58
18p	3,443	4,13
18q	2,566	3,53
19p	2,663	4,04
19q	2,334	4,27
20p	3,737	4,20
20q	2,687	4,34
Xp	2,975	4,34
Xq	3,528	3,45

Mean replication timings (Σ (% of telomeres replicating in pulse n multiplied by n)/total number of n) and divided by 6 (the total number of pulses analyzed) as determined by the ReD-FISH approach for chimpanzee telomeres (this manuscript) and for human telomeres (1) in fibroblast cells. Human acrocentric chromosomes were considered in groups D and G in (1) and therefore individual values were not available for comparison.

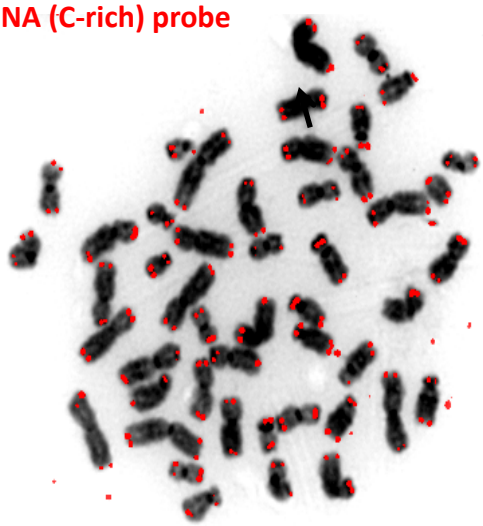
1. Arnoult, N., Schluth-Bolard, C., Letessier, A., Drascovic, I., Bouarich-Bourimi, R., Campisi, J., Kim, S.H., Boussouar, A., Ottaviani, A., Magdinier, F. *et al.* (2010) Replication timing of human telomeres is chromosome arm-specific, influenced by subtelomeric structures and connected to nuclear localization. *PLoS Genet*, **6**, e1000920.

Figure S1

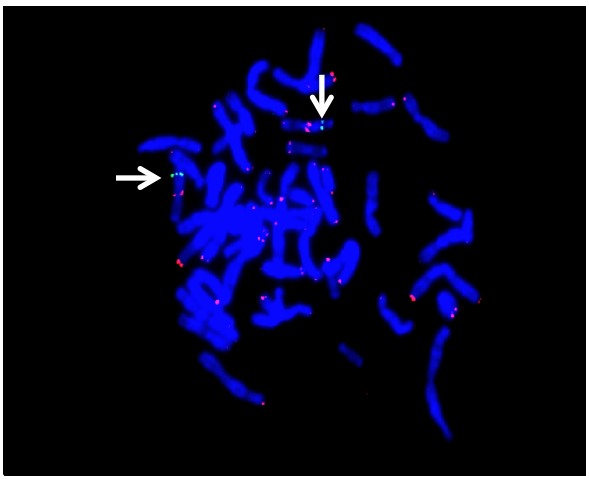
A **LNA (G-rich) probe**



B **PNA (C-rich) probe**



C



D

Figure S2

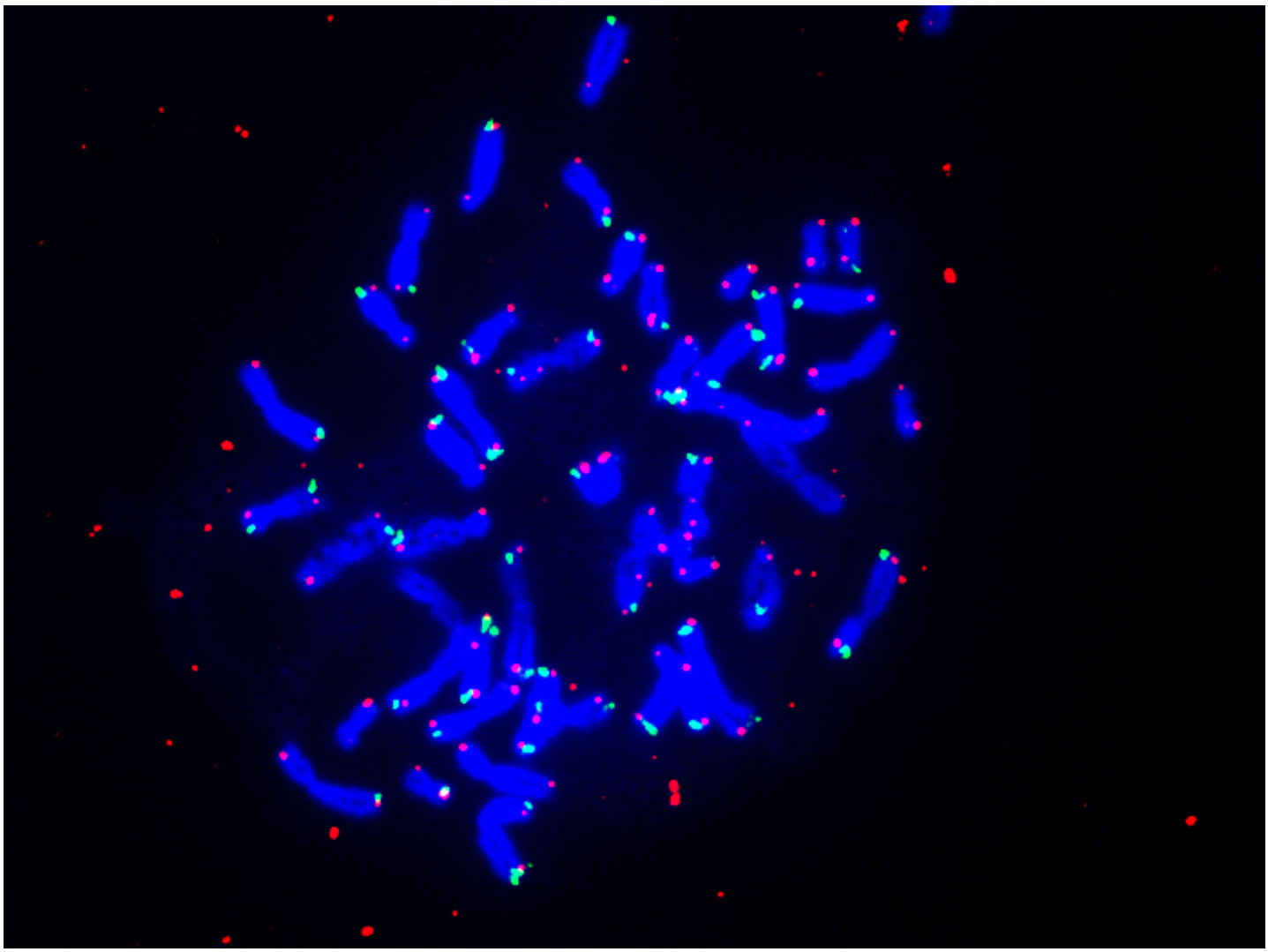
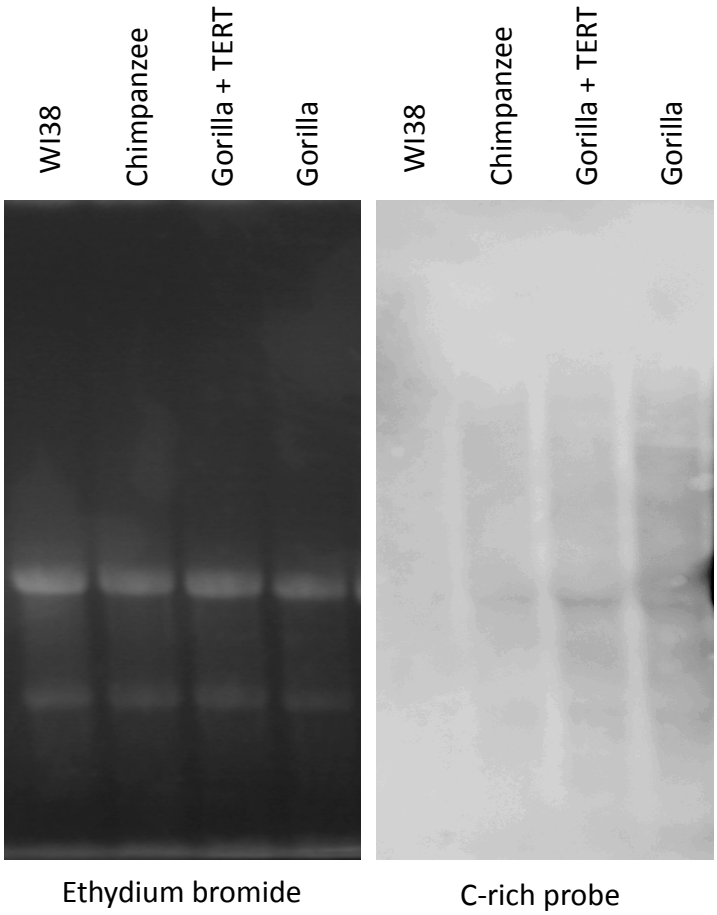


Figure S3

A


WI38
Chimpanzee
Gorilla + TERT
Gorilla
WI38
Chimpanzee
Gorilla + TERT
Gorilla
Ethydium bromide
C-rich probe

B

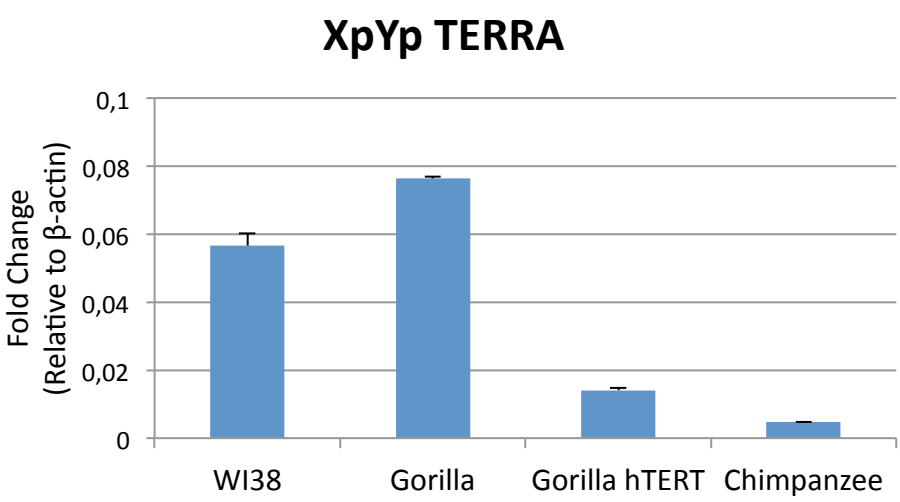
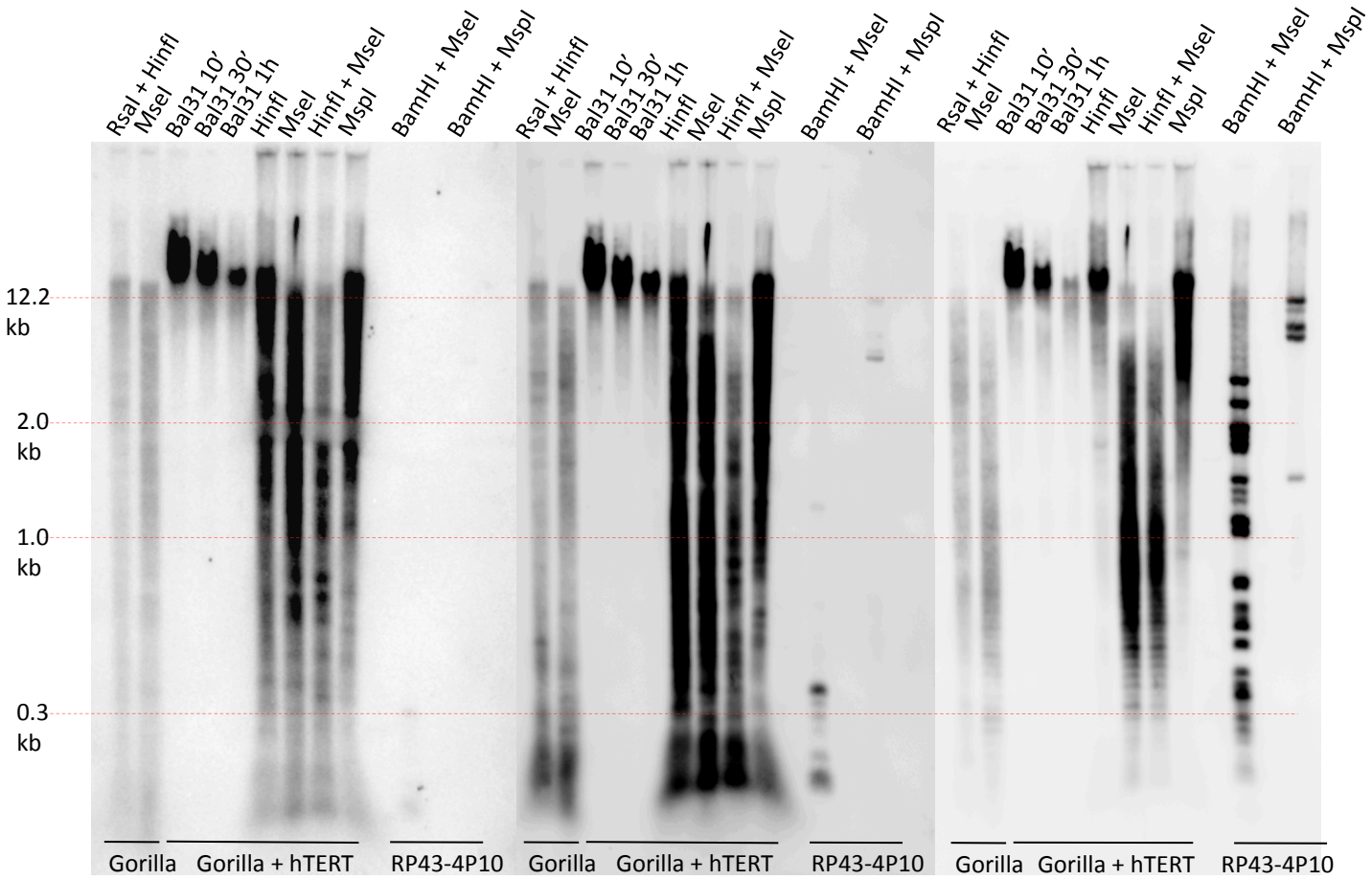

XpYp TERRA
Fold Change (Relative to β-actin)
0,1
0,08
0,06
0,04
0,02
0
WI38
Gorilla
Gorilla hTERT
Chimpanzee

Figure S4



Tel G-rich γ-P32 **Tel C-rich DIG-Tel-DIG** **Cht7 DIG**