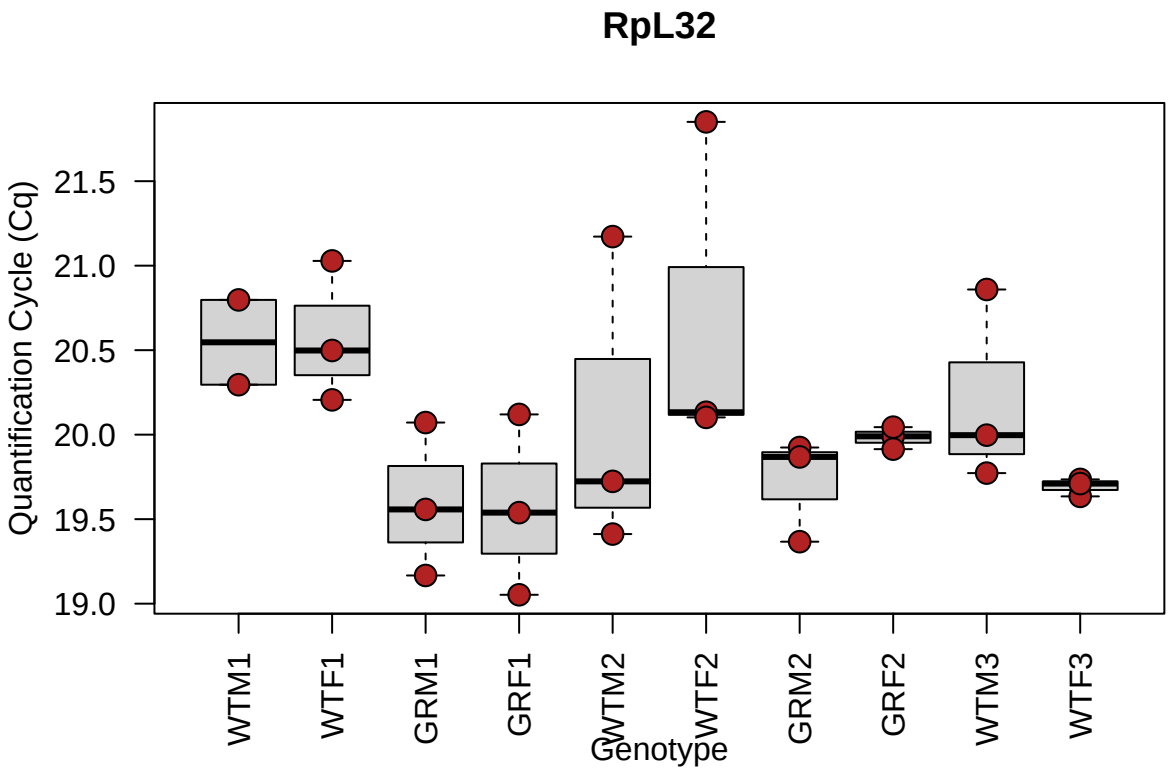
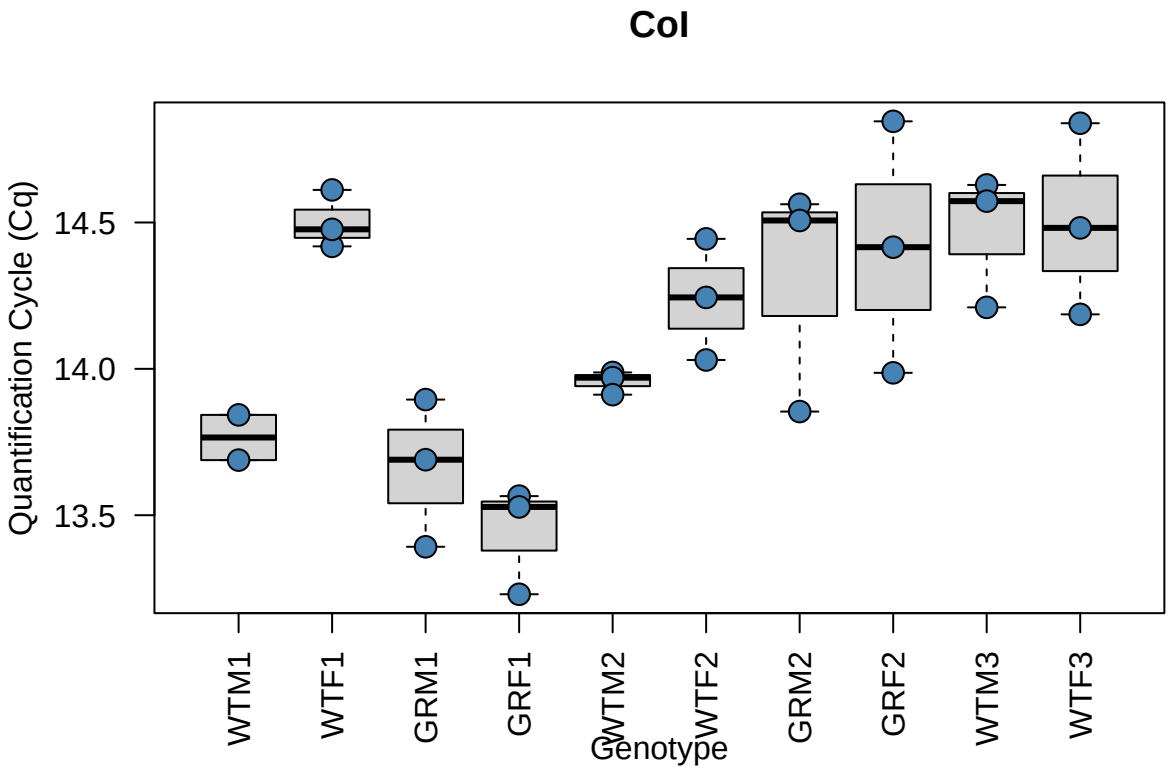
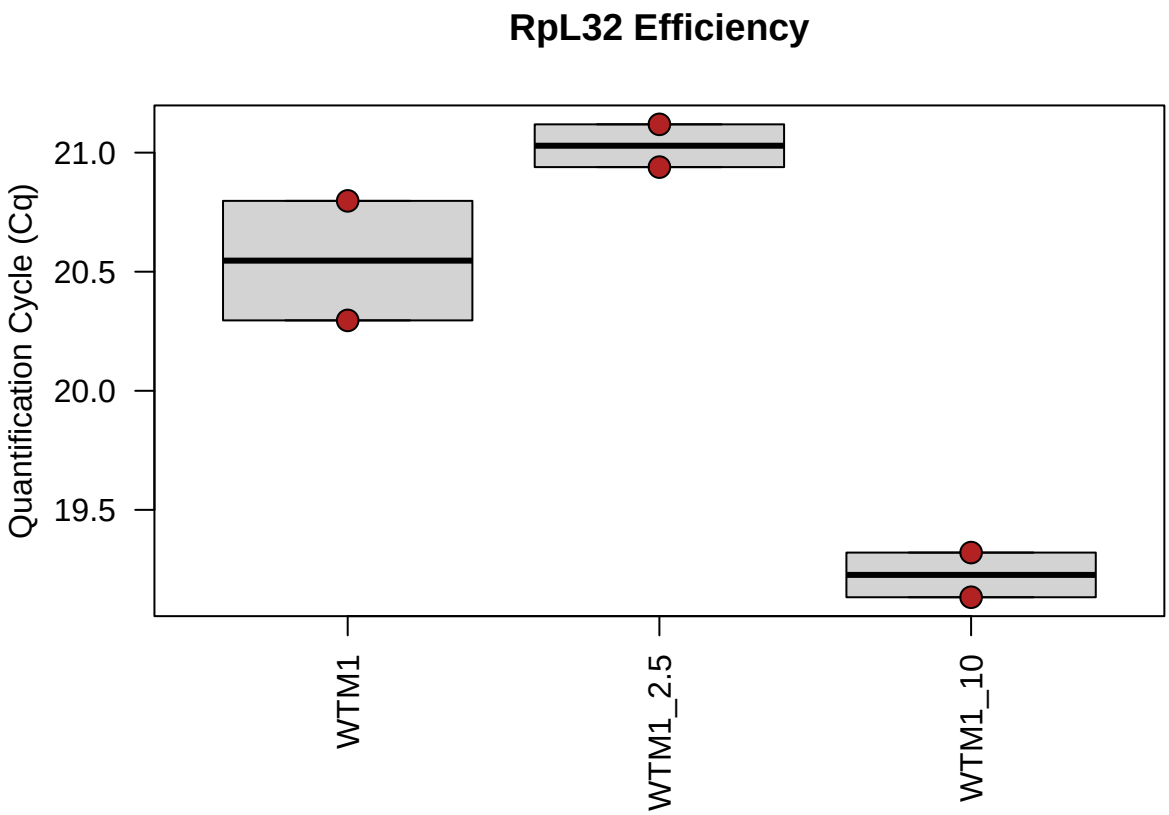
John CoI and RpL32 in G85R and WT Analysis

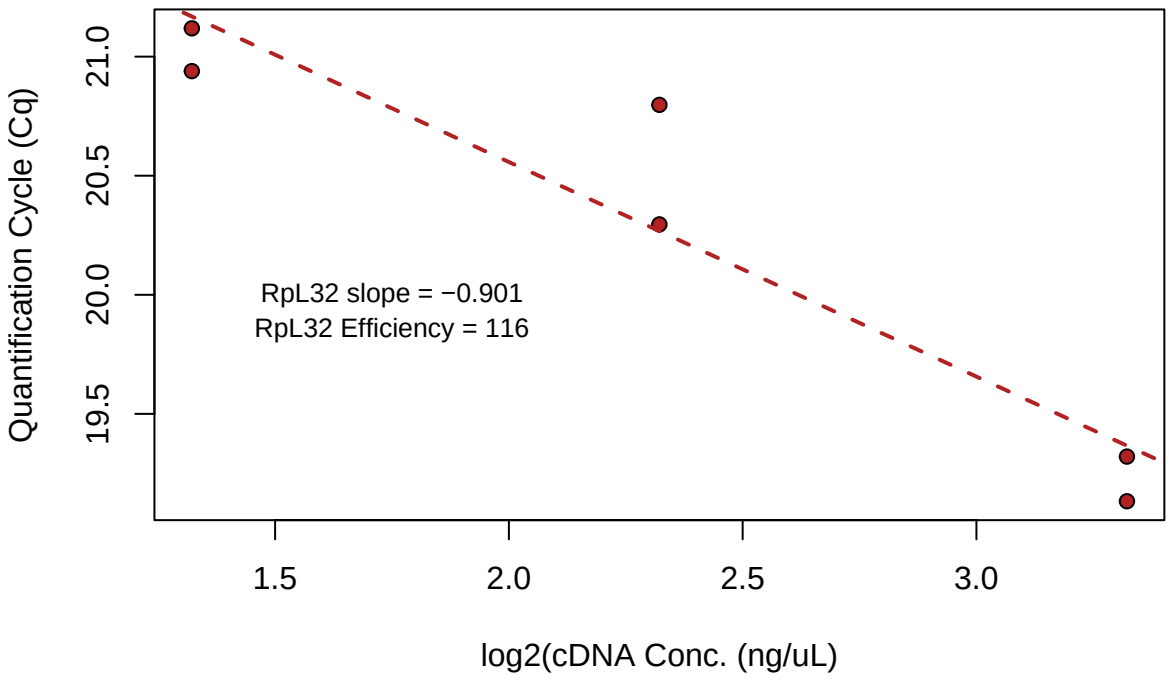
John Santiago

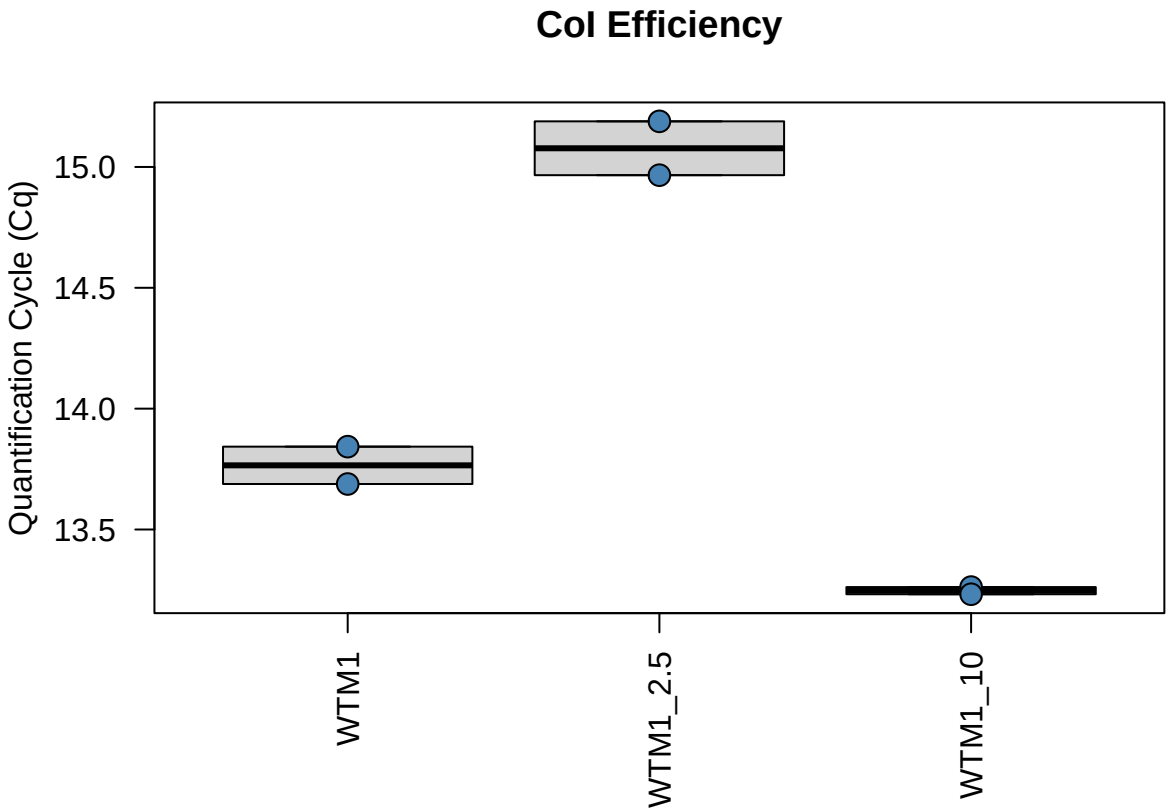
2023-12-14

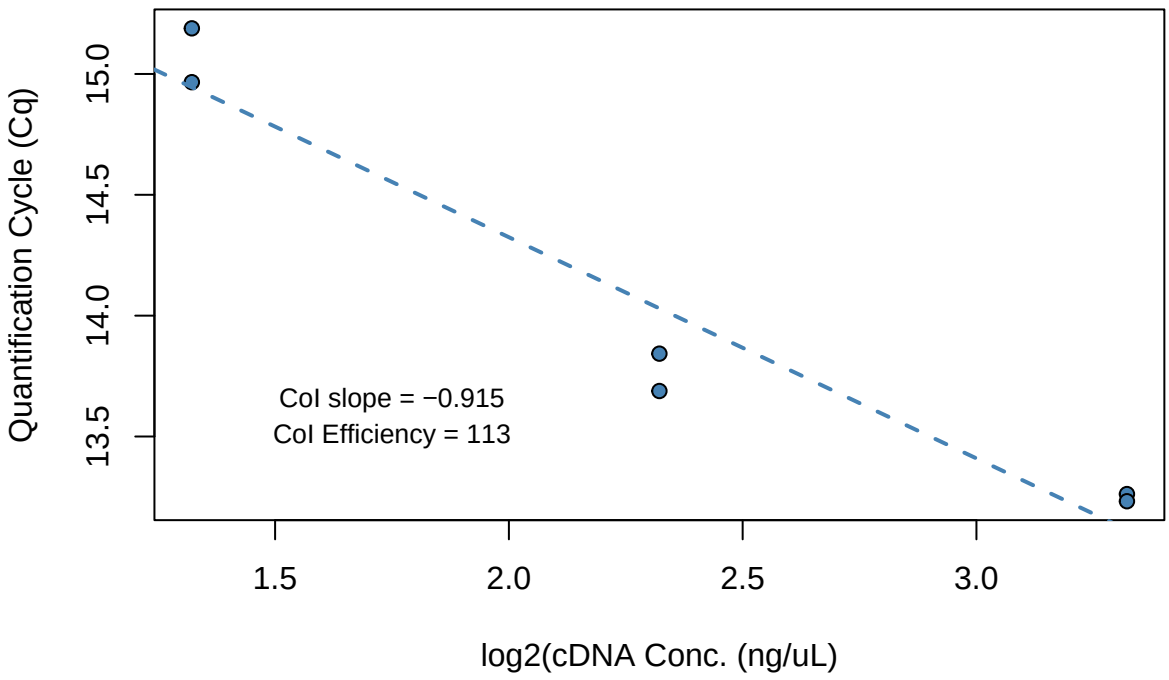


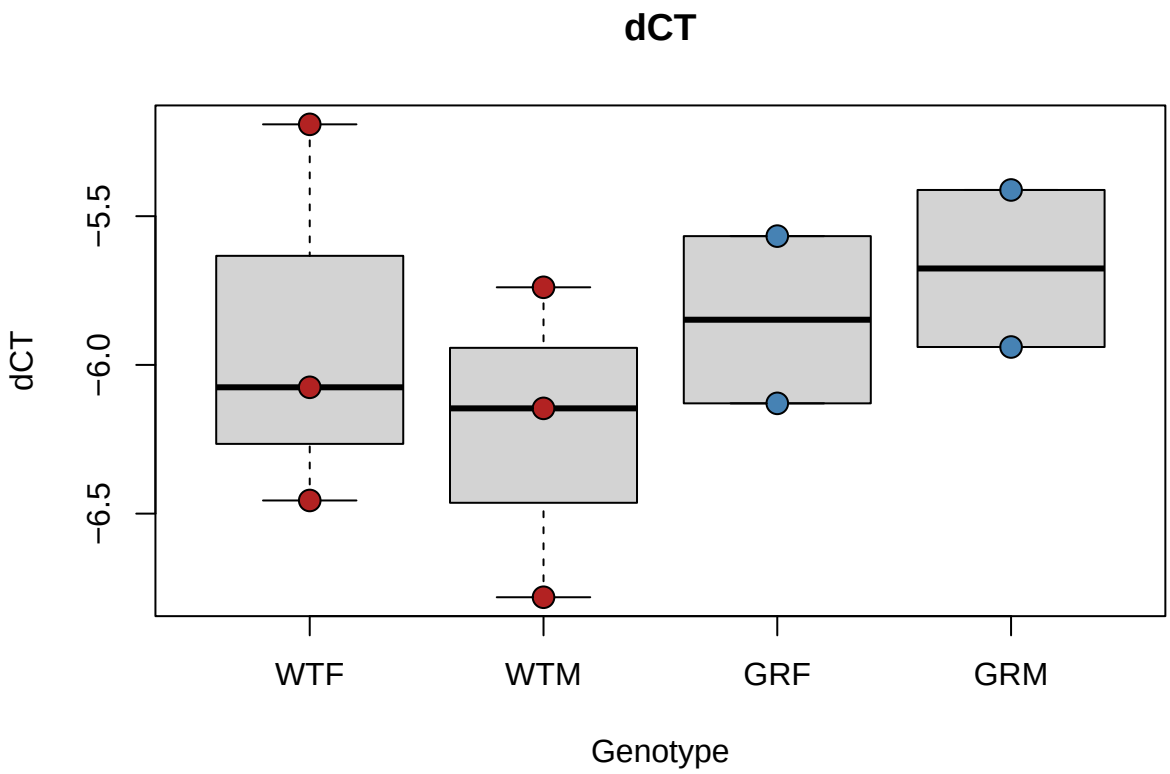

Col
Quantification Cycle (Cq)
14.5
14.0
13.5
WTM1
WTF1
GRM1
GRF1
WTM2
WTF2
GRM2
GRF2
WTM3
WTF3
Genotype

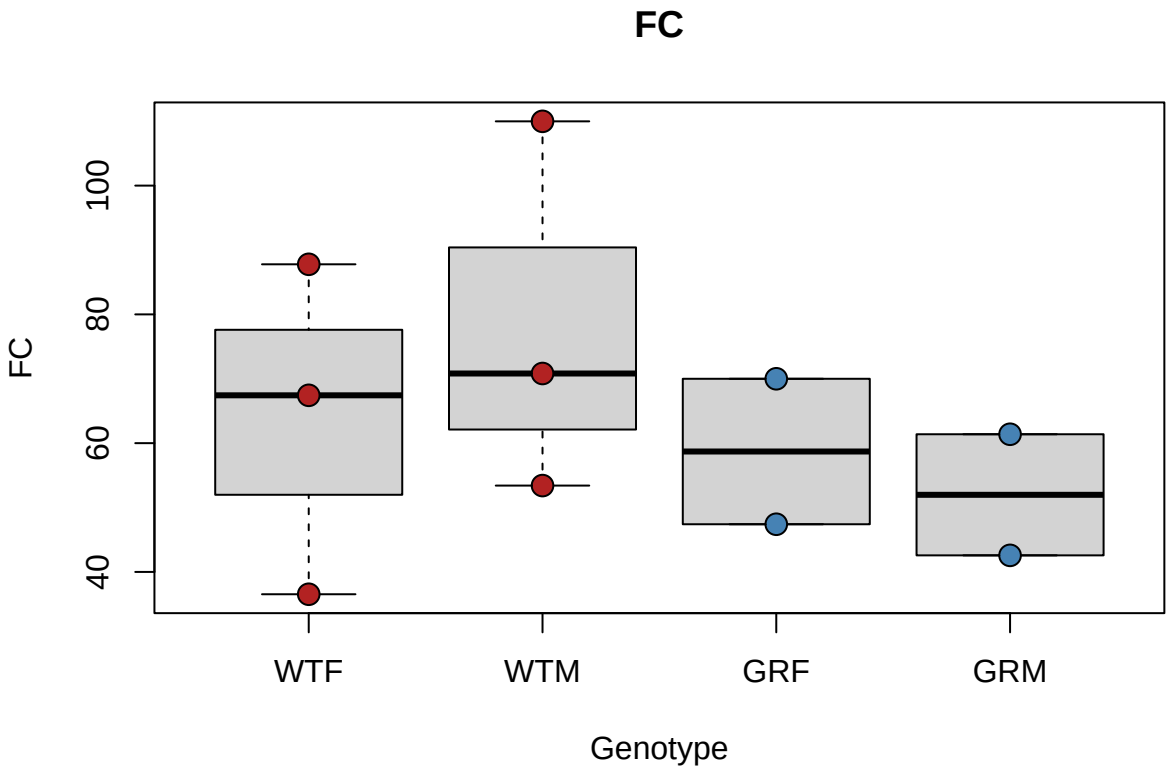

RpL32 Efficiency
Quantification Cycle (Cq)
21.0
20.5
20.0
19.5
WTM1
WTM1_2.5
WTM1_10


Quantification Cycle (Cq)
21.0
20.5
20.0
19.5
RpL32 slope = −0.901
RpL32 Efficiency = 116
1.5
2.0
2.5
3.0
log2(cDNA Conc. (ng/uL)


CoI Efficiency
Quantification Cycle (Cq)
15.0
14.5
14.0
13.5
WTM1
WTM1_2.5
WTM1_10


Quantification Cycle (Cq)
15.0
14.5
14.0
13.5
CoI slope = −0.915
CoI Efficiency = 113
1.5
2.0
2.5
3.0
log2(cDNA Conc. (ng/uL)


dCT
−5.5
−6.0
−6.5
dCT
WTF
WTM
GRF
GRM
Genotype


FC
FC
40
60
80
100
WTF
WTM
GRF
GRM
Genotype

```r
dCT.aov = aov(mean.Ct$dCt~mean.Ct$Genotype)

summary(dCT.aov)
```

```
##                  Df Sum Sq Mean Sq F value Pr(>F)
## mean.Ct$Genotype  3 0.3982  0.1327   0.471  0.714
## Residuals         6 1.6907  0.2818
```

```r
TukeyHSD(dCT.aov)
```

```
##   Tukey multiple comparisons of means
##     95% family-wise confidence level
##
## Fit: aov(formula = mean.Ct$dCt ~ mean.Ct$Genotype)
##
## $`mean.Ct$Genotype`
##                 diff       lwr      upr     p adj
## WTM-WTF -0.31462610 -1.815026 1.185774 0.8834168
## GRF-WTF  0.05931707 -1.618181 1.736816 0.9992688
## GRM-WTF  0.23161695 -1.445882 1.909115 0.9612476
## GRF-WTM  0.37394317 -1.303555 2.051442 0.8645443
## GRM-WTM  0.54624305 -1.131255 2.223742 0.6879471
## GRM-GRF  0.17229988 -1.665308 2.009907 0.9870332
```

```
## [1] "Relative mtDNA levels in Male G85R/WT = 0.685"
```

```
## [1] "Relative mtDNA levels in Female G85R/WT = 0.96"
```