

FCS Test Report

Howard Setyamukti

Data Summary

Separated data, termed as mother and bud, exclude G1 phase.

```
summary(rpl)
```

```
## CellCyclePhase Morphology Density
## G2 :11 bud :13 Min. : 727.9
## late S : 2 mother:14 1st Qu.:4822.2
## mitosis:14 Median :5571.6
## Mean :5748.8
## 3rd Qu.:6947.2
## Max. :9289.5
```

ANOVA

The following is the result of ANOVA where it is demonstrated that there is significant difference between groups (mothers and buds).

```
res.aov <- aov(Density ~ Morphology, data = rpl)
summary(res.aov)
```

```
##          Df    Sum Sq Mean Sq F value    Pr(>F)
## Morphology  1 32032821 32032821   15.07 0.000671 ***
## Residuals 25 53153829  2126153
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Validity Check

Normality test, confirmed by Shapiro-Wilk test of normality.

```
#plot(res.aov, 2)
aov_residuals <- residuals(object = res.aov)
shapiro.test(x = aov_residuals)
```

```
##
## Shapiro-Wilk normality test
##
## data:  aov_residuals
## W = 0.97152, p-value = 0.6423
```