

FCS Test Report

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Data Summary

Only buds data, exclude S phase due to only 1 observation.

```
summary(rpl)
```

```
## CellCyclePhase Morphology Density
## G2 :5 bud:12 Min. : 727.9
## mitosis:7 1st Qu.:4037.2
## Median :5043.6
## Mean :4651.1
## 3rd Qu.:5624.6
## Max. :6990.6
```

ANOVA

The following is the result of ANOVA where it is demonstrated that there is significant difference between groups (buds at different cell cycles).

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

```
##           Df    Sum Sq Mean Sq F value Pr(>F)
## CellCyclePhase  1 16892448 16892448   11.26 0.0073 **
## Residuals      10 15005037  1500504
## ---
## 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 = 0.96273, p-value = 0.822
```