library(DiffBind)

library(ChIPQC)

library(tidyverse)

a <- dba(sampleSheet="samplesheetA.csv")

a <- dba.count(a, minOverlap=1,summits=FALSE)

a

png("PCA.png", width=500, height=500)

dba.plotPCA(a, attributes=DBA\_CONDITION, label=DBA\_ID)

dev.off()

png("CorrelationMatrix.png", width=500, height=500)

plot(a)

dev.off()

a <- dba.contrast(a, categories=DBA\_CONDITION, minMembers = 3)

a <- dba.analyze(a, method=DBA\_ALL\_METHODS, bBlacklist=FALSE, bGreylist=FALSE)

a

rownames(a$binding) <- 1:nrow(a$binding)

res\_deseq <- dba.report(a, method=DBA\_EDGER, contrast = 1, th=1)

write.table(res\_deseq,file="WTvsIRF8MG\_F\_ATAC.csv", sep=",")

png("MAplot.png", width=500, height=500)

dba.plotMA(a, th=0.05, dotSize=1, method=DBA\_EDGER)

dev.off()

png("VolcanoPlot.png", width=500, height=500)

dba.plotVolcano(a, th=0.05, dotSize=1, method=DBA\_EDGER)

dev.off()