library(tidyverse)

library(ggplot2)

library(patchwork)

library(reshape2)

data <- read.table("~/file.txt", header = T)

head(data)

# target NAT1 ADH1B BIRC5 AQP9 BCL2A1

# 1 6.395299 2.332422 1.7707953 5.002700 1.4738576 3.233794

# 2 12.270018 2.420924 0.9751920 5.623562 0.8144824 1.188484

# 3 6.297991 3.095432 0.1420562 4.625413 0.7765188 0.445318

# 4 6.954923 2.150208 2.1391032 4.816844 1.3144263 2.868153

# 5 6.317630 2.442149 0.1408322 6.183782 2.5177065 5.370463

# 6 5.479180 2.791275 0.7515575 5.991042 3.5884496 5.269202

data$group <- ifelse(data$target >= median(data$target), "High", "Low")

data$group <- factor(data$group, levels = c("Low", "High"))

data<- data[order(data$target), ]

data$id <- 1:nrow(data)

### plot

p1 <- ggplot() +

geom\_bar(data = data,

aes(x = id, y = target, color=group, fill = group),

stat = 'identity', position = 'dodge') +

scale\_y\_continuous(expand = c(0,0)) +

theme\_classic() +

theme(axis.title.x = element\_blank(), axis.text.x = element\_blank(),

axis.ticks.x = element\_blank(), axis.line.x = element\_blank())

data1 <- data %>%

select(-group, -target) %>%

remove\_rownames() %>%

column\_to\_rownames("id") %>%

scale() %>% as.data.frame() %>%

rownames\_to\_column("id") %>%

melt()

p2 <-

ggplot(data = data1, aes(x = id, y = as.numeric(variable), fill = value)) +

geom\_raster() +

scale\_fill\_gradientn(colors = c("#4DBBD5", "#FFFFFF", "#E64B35")) +

scale\_y\_continuous(expand = c(0,0), limits = c(0.5,5.5), breaks = 1:5,

labels = levels(data1$variable)) +

theme(axis.title = element\_blank(), axis.text.x = element\_blank(),

axis.ticks.x = element\_blank(), axis.line.x = element\_blank())

p1 / p2