

A scatter plot showing the relationship between the negative logarithm of the p-value ( $-\log_{10}(p\text{-value})$ ) on the y-axis and the base-2 logarithm of the fold change ( $\log_2(\text{FC})$ ) on the x-axis. The plot displays data for 1000 genes, represented by cyan and magenta circles. A vertical green line is drawn at  $\log_2(\text{FC}) = 0.500$ , which corresponds to a fold change of 1.5. The data points are clustered into two groups: one group with high fold change and low significance (cyan circles) and another group with low fold change and high significance (magenta circles).

