# Volcano Plot Summary:

Volcano plots are sometimes used for visualization of statistical results of omics data such as differential expression of genes measured through microarrays. The interactive volcano plot has the power to show at a click of a mouse button which metabolites show a stronger combination of fold change and statistical significance. They represent significance from a statistical test (such as a p-value) on the y-axis and fold-change on the x-axis. They can also compare metabolite levels with different experimental conditions. As a consequence, metabolites in the volcano plot that have a relatively low fold-change between the two samples appear near the center and metabolites that have significant p-values are found in the upper-right or upper-left. [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3629923/]

### Input Summary:

Input Dataset: -> volcano\_plot\_input.csv

Output Datasets and Files: -> Volcano Plot -> volcano\_plot.svg

**no parameter needed. Click Submit.**

Figure 1 is the volcano plot. There are 6 compounds significantly increased more than the fold change cut-off, while 2 compounds significantly decreased more than the fold change cut-off. The y axis is the -log10 p-values. The higher the more significant. The x axis is the log2 Fold Change. The further from the origin the larger the fold change.

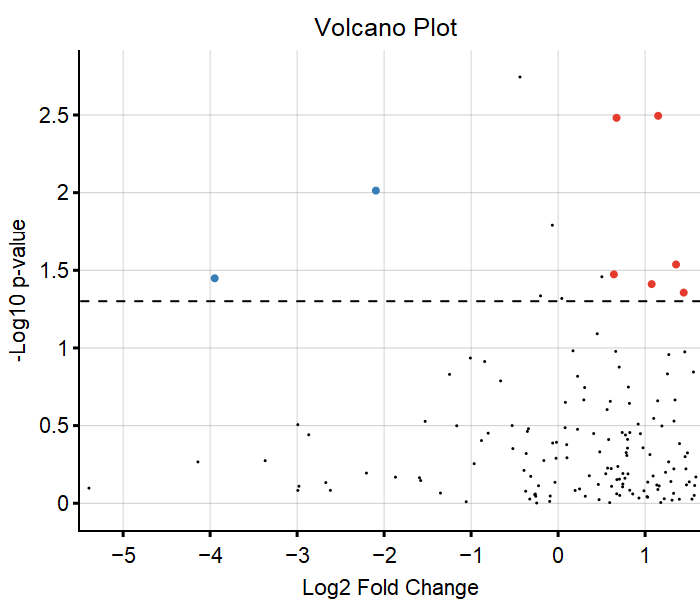


Figure 1: volcano plot.