

Figure S1. Volcano plot of differentially present metabolites in the control group. (A) Striatum vs. cortex. (B) Thalamus vs. cortex. (C) Striatum vs. thalamus. Each point represents a metabolite. Red represents upregulated differentially present metabolites, green represents downregulated differentially present metabolites and grey represents metabolites that were not differentially present. The abscissa represents the  $\log_2$  fold change of metabolites, the ordinate represents the  $-\log_{10}$ (P-value). The size of each point corresponds to the VIP value (from small to large, VIP of 0.4, 0.8, 1.2 and 1.6). VIP, variable importance in projection.

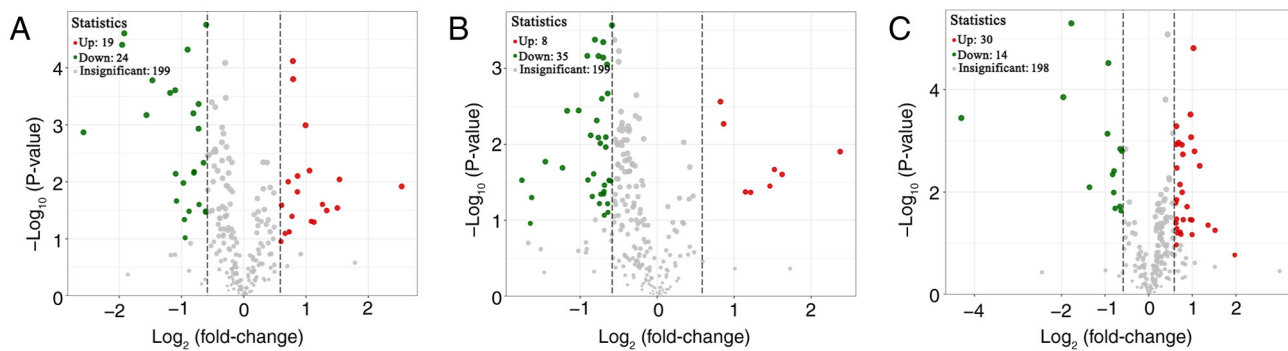


Figure S2. Volcano plot of differentially present metabolites in the tic disorder group. (A) Striatum vs. cortex. (B) Thalamus vs. cortex. (C) Striatum vs. thalamus. Each point represents a metabolite. Red represents upregulated differentially present metabolites, green represents downregulated differentially present metabolites and grey represents metabolites that were not differentially present. The abscissa represents the  $\log_2$  fold change of metabolites, the ordinate represents the  $-\log_{10}(\text{P-value})$ . The size of each point corresponds to the VIP value (from small to large, VIP of 0.4, 0.8, 1.2 and 1.6). VIP, variable importance in projection.

