

Untargeted Metabolomics Plus

Technology introduction

The untargeted metabolomics is used for unbiased detection of metabolites in samples by LC-MS/MS and to obtain their qualitative and quantitative information. The main research idea is to compare the case group with the control group to find the differential metabolites and metabolic pathways between the groups, which can provide clues and directions for the research of disease biomarker development, pathogenesis and drug treatment mechanism. In our novel untargeted metabolomics approach, employing a HILIC column in addition to the C18 column substantially enhances the detection of highly polar metabolites, such as amino acids and their derivatives, nucleotides, and other metabolites crucial to energy metabolism.

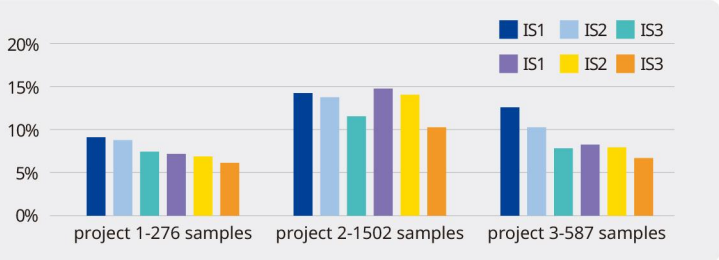
Large Curated Database
Over 280,000 metabolites

Comprehensive Identification Strategy
 ① In-house standard database ② Integrated public database
 ③ AI database ④ metDNA algorithm

Comprehensive Metabolic Detection
Covering metabolites with strong polar and non-polar compounds using C18 and HILIC column

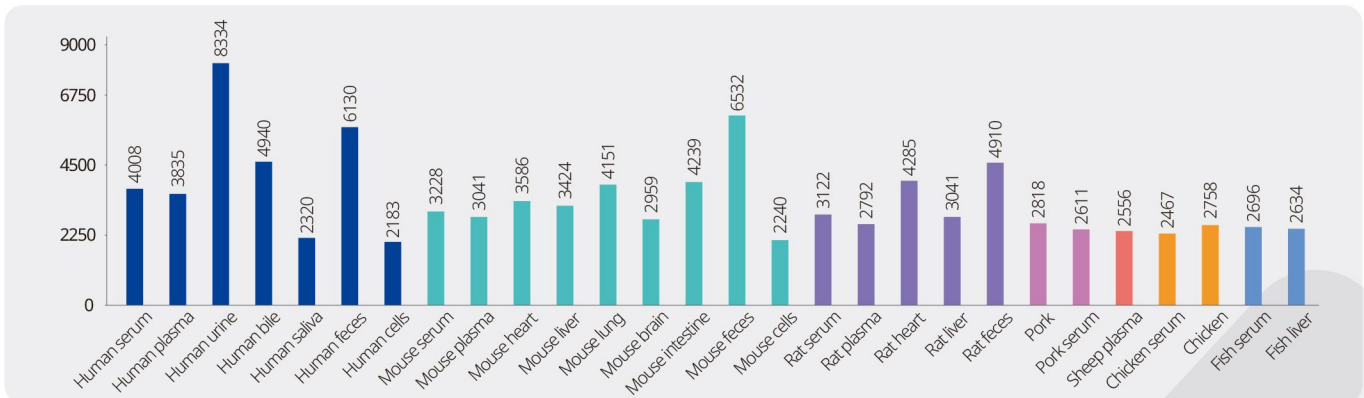
Rigorous Quality Control
Monitoring all aspects of experimentation from sample preparation to data collection.

Stability
Highly stable detection for untargeted metabolomics analysis. Coefficient of variation (CV) of six internal standards are less than 15% in large cohort samples from 3 projects.



Project Experience

Untargeted Metabolomics Plus assay detected on average 3528 metabolites in plasma or serum samples, 3475 metabolites in tissue samples.



Number of metabolites detected from various samples, including serum and plasma and fecal samples, etc.