高解析液相層析質譜儀(UPLC-HRMS)

農生中心使用申請單\_metabolite flux

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| 樣品種類 (Type)：樣品濃度 (Conc.)： | 申請日期： 年 月 日(year/ month/ day) |
| 申請人(Name)： | 服務單位(Lab)： |
| 聯絡電話(Tel)： | E-mail： |
| 可溶解樣品之溶劑 (Recommended sample solvent)：* ACN □ MeOH □ EtOH □ H2O □ 其他­­\_\_\_\_\_\_\_\_\_\_\_
 |
| 保存條件(Store temperature)：□ 4oC □ -20oC □ -80oC 樣品性質(Sample property)：□毒性(toxic) □怕光(avoid light) □易潮解(deliquescent) □易揮發(volatility) □腐蝕性(corrosive) □其他(other)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| UPLC分離條件 (Separation condition)：□ BEH C18 column，Gradient：0-100% MeOH or ACN□ 自行提供條件，­­請詳述\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 目的：□ 同位素標定之代謝物通量分析 (Metabolic flux analysis by isotopic labelling) | 主持人簽章：(由中研院業務費款項支出)(確認金額無誤後請簽章) |

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| 樣品數目(Sample) | × | 費率(Rate) | + | 系統最佳化(Optimization)  | = | 金額(Fee) |
|  | NT 800/樣品 | 1600 |  |
| 代謝物途徑比對 (Metabolic flux analysis)NT 2000/組(10個樣品) | + | 自備標品 (Standards)NT 2000/組 | = | 金額(Fee) |
| □ Amino acids□ Tricarboxylic acid ( TCA ) cycle □ Glycolysis□ Pentose phosphate□ Nucleic acids, nucleosides, nucleotides□ Glutathione metabolism |  |  |  |
| **總金額(Total fee) : NTD**  |

有任何問題，請聯絡林芝毓博士 (Lin, Chih-Yu ) Tel: (02) 2787-2087 Email: zelda@gate.sinica.edu.tw

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| **Amino acids** | **Glycolysis** | **TCA cycle** |
| Alanine | Glucose | Acetyl-CoA |
| Valine | Glucose-6-phosphate | Citrate/Isocitrate |
| Leucine | Fructose-6-phosphate /Glucose-1-phosphate | cis-Acotinate |
| Isoleucine | Glyceraldehyde-3-phosphate | α-Ketoglutarate |
| Methionine | 3-Phosphoglycerate | Succinyl-CoA |
| Phenylalanine | 2-Phosphoglycerate | Succinate |
| Tyrosine | Phosphoenolpyruvate | Fumarate |
| Tryptophan | Pyruvate | Malate |
| Arginine | Inositol | Malonyl-CoA |
| Histidine |  | 2-Hydroxyglutarate |
| Lysine |  | GABA |
| Aspartic acid | **Pentose phosphate**  |  |
| Glutamic acid | 6-phosphsgluconate |  |
| Serine | Ribulose-5-phosphate/Xylulose-5-phosphate |  |
| Threonine | Ribose-5-phosphate |  |
| Asparagine | Sedoheptulose-7-phosphate |  |
| Glutamine | Erythrose-4-phosphate |  |
| Cysteine |  |  |
| Glycine |  |  |
| Proline |  |  |

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| Nucleic acids, nucleosides, nucleotides |
| AMP | ADP | ATP |
| CMP | CDP | CTP |
| GMP | GDP | GTP |
| UMP | UDP | UTP |
| TMP | IMP | XMP |
| Adenine | Cytosine | Guanine |
| Uracil | Thymine | Adenosine |
| Cytidine | Guanosine | Uridine |
| Thymidine | Inosine | Xanthine |
| Xanthosine |  |  |

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| Glutathione metabolism |
| GSH | GSSG | GSNO |
| NAD+ | NADH | NADP+ |
| NADPH |  |  |