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](mailto: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 |  |  |