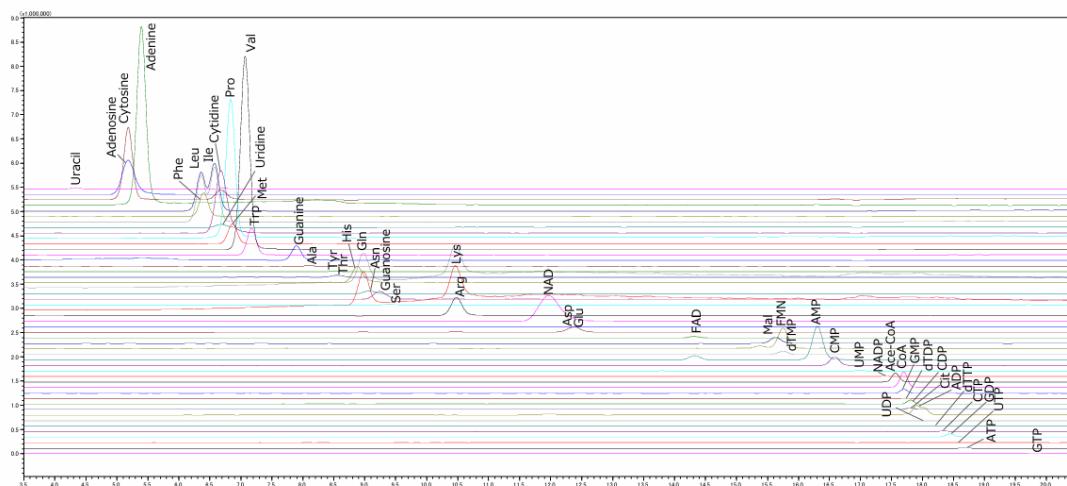


**CoreFocus**  
**Report**
**No.587**

LC-MS    HILIC    Shim-pack™ Series

**Shim-pack Mix HILIC**  
**Analysis of Hydrophilic Metabolites**
**Keywords: metabolomics**


1. Uracil	11. Met	21. Guanosine	31. AMP	41. ADP
2. Adenosine	12. Val	22. Ser	32. CMP	42. UDP
3. Cytosine	13. Trp	23. Arg	33. UMP	43. dTTP
4. Adenine	14. Guanine	24. NAD	34. NADP	44. CTP
5. Leu	15. Ala	25. Asp	35. Ace-CoA	45. GDP
6. Phe	16. Tyr	26. Glu	36. CoA	46. UTP
7. Ile	17. Thr	27. FAD	37. GMP	47. ATP
8. Uridine	18. His	28. Mal	38. dTDP	48. GTP
9. Cytidine	19. Gln	29. FMN	39. CDP	
10. Pro	20. Asn	30. dTMP	40. Cit	

**[HPLC conditions] (Nexera™ X3)**

Column : Shim-pack Mix HILIC,  
 150 mm x 2.1 mm I.D., 5  $\mu$ m\*1  
 Column oven : 40 °C  
 Mobile phase A : Water + 40 mmol/L ammonium bicarbonate (pH 9.7)  
 Mobile phase B : Acetonitrile  
 Rinse : Methanol  
 Gradient : B conc 95 %(0-0.5 min) → 40 %(15.5 min)  
 → 0 %  
 (16.5-16.5 min) → 95 %(27.5- 35 min)  
 Flow rate : 0.4 mL/min  
 Injection vol. : 5  $\mu$ L

1\*: P/N : 227-32751-01

**[MS conditions] (LCMS-8060NX)**

Ionization : ESI (IonFocus™)  
 Mode : MRM  
 Nebulizing gas flow : 2.0 L/min  
 Heating gas flow : 10.0 L/min  
 Drying gas flow : 10.0 L/min  
 DL Temp. : 250 °C  
 Heat Block Temp. : 400 °C  
 Interface Temp. : 300 °C  
 CID gas pressure : 270 kPa

Source : Application News 01-00679 (JP,ENG)

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