|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sample** | **gradient length** | **plate position** |  | **Sample** | **gradient length** | **plate position** |
| fraction\_01 | 50 min | A9 |  | fraction\_37 | 50 min | E6 |
| fraction\_02 | 50 min | A8 |  | fraction\_38 | 70 min | E5 |
| fraction\_03 | 70 min | A7 |  | fraction\_39 | 70 min | E4 |
| fraction\_04 | 70 min | B9 |  | fraction\_40 | 50 min | F6 |
| fraction\_05 | 90 min | B8 |  | fraction\_41 | 50 min | F5 |
| fraction\_06 | 90 min | B7 |  | fraction\_42 | 50 min | F4 |
| fraction\_07 | 110 min | C9 |  | fraction\_43 | accumulate in trap column | G6 |
| fraction\_08 | 110 min | C8 |  | fraction\_44 | accumulate in trap column | G5 |
| fraction\_09 | 110 min | C7 |  | fraction\_45 | accumulate in trap column | G4 |
| fraction\_10 | 110 min | D9 |  | fraction\_46 | accumulate in trap column | H6 |
| fraction\_11 | 110 min | D8 |  | fraction\_47 | accumulate in trap column | H5 |
| fraction\_12 | 90 min | D7 |  | fraction\_48 | accumulate in trap column | H4 |
| fraction\_13 | 90 min | E9 |  | fraction\_49 | accumulate in trap column | A3 |
| fraction\_14 | 90 min | E8 |  | fraction\_50 | 50 min | A2 |
| fraction\_15 | 90 min | E7 |  | fraction\_51 | 70 min | A1 |
| fraction\_16 | 70 min | F9 |  | fraction\_52 | 70 min | B3 |
| fraction\_17 | 50 min | F8 |  | fraction\_53 | accumulate in trap column | B2 |
| fraction\_18 | 50 min | F7 |  | fraction\_54 | accumulate in trap column | B1 |
| fraction\_19 | 50 min | G9 |  | fraction\_55 | accumulate in trap column | C3 |
| fraction\_20 | accumulate in trap column | G8 |  | fraction\_56 | accumulate in trap column | C2 |
| fraction\_21 | accumulate in trap column | G7 |  | fraction\_57 | accumulate in trap column | C1 |
| fraction\_22 | accumulate in trap column | H9 |  | fraction\_58 | accumulate in trap column | D3 |
| fraction\_23 | accumulate in trap column | H8 |  | fraction\_59 | accumulate in trap column | D2 |
| fraction\_24 | accumulate in trap column | H7 |  | fraction\_60 | accumulate in trap column | D1 |
| fraction\_25 | accumulate in trap column | A6 |  | fraction\_61 | accumulate in trap column | E3 |
| fraction\_26 | accumulate in trap column | A5 |  | fraction\_62 | accumulate in trap column | E2 |
| fraction\_27 | 50 min | A4 |  | fraction\_63 | accumulate in trap column | E1 |
| fraction\_28 | 50 min | B6 |  | fraction\_64 | 50 min | F3 |
| fraction\_29 | 70 min | B5 |  | fraction\_65 | 50 min | F2 |
| fraction\_30 | 50 min | B4 |  | fraction\_66 | 70 min | F1 |
| fraction\_31 | 50 min | C6 |  | fraction\_67 | accumulate in trap column | G3 |
| fraction\_32 | accumulate in trap column | C5 |  | fraction\_68 | accumulate in trap column | G2 |
| fraction\_33 | accumulate in trap column | C4 |  | fraction\_69 | accumulate in trap column | G1 |
| fraction\_34 | accumulate in trap column | D6 |  | fraction\_70 | accumulate in trap column | H3 |
| fraction\_35 | accumulate in trap column | D5 |  | fraction\_71 | 50 min | H2 |
| fraction\_36 | 50 min | D4 |  | fraction\_72 | 50 min | H1 |

**Supplementary file 12.** Pooling strategy for the condensed HiRIEF LC-MS/MS analysis used in the longitudinal female cohort.