**Fig. S1 The total ion chromatogram with labelled peaks (1~11) and Mass spectra for each of identified derivatives.**



**Table. 2 Glycosidic linkage type analysis of VBCP 2.5.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No. | **Rt(min)** | **Methylated residues** | **Linkage type** | **Area percent(%)** | **Mass fragment**  **(m/z)** |
| 1 | 6.57 | 2,3,5-tri-*O*-methyl-arabinitol | t linked-Ara*f* | 2.16 | 117, 43, 129, 101, 161, 87, 71, 102 |
| 2 | 9.79 | 2,3-di-*O*-methyl-arabinitol | 1,5 linked-Ara*f* | 3.29 | 117, 43, 129, 101, 87, 89, 99, 189 |
| 3 | 10.56 | 3,4-di-*O*-methyl-mannitol | 1,2 linked-Rha*p* | 3.85 | 87, 43, 202, 117, 101, 131, 216, 89, 229 |
| 4 | 11.02 | 2,3,4,6-tetra-*O*-methyl-glucitol | t linked-Glc*p* | 3.80 | 101, 43, 117, 161, 129, 145, 87, 205, 71 |
| 5 | 11.69 | 2,3,4,6-tetra-*O*-methyl-galactitol | t-linked-Gal*p* | 4.64 | 117, 43, 101, 129, 145, 161, 87, 205, 71 |
| 6 | 12.18 | 2-*O*-methyl-arabinitol | 1,3,5 linked-Ara*f* | 3.90 | 117, 43, 85, 127, 99, 87, 159, 261, 58 |
| 7 | 14.13 | 2,3,6-tri-*O-*methyl-galactitol | 1,4 linked-Gal*p* | 63.21 | 117, 43, 113, 233, 101, 99, 87, 129, 131 |
| 8 | 16.32 | 2,6-*O*-methyl-galactitol | 1,3,4 linked-Gal*p* | 2.54 | 117, 43, 129, 87, 143, 97, 185, 115 |
| 9 | 18.040 | 2,3-di-*O*-methyl-mannitol | 1,4,6 linked-Man*p* | 2.32 | 117, 43, 127, 101, 85, 261, 99, 87, 129 |
| 10 | 22.07 | impurity |  | 4.94 | 43, 115, 145, 187, 139, 128, 157, 170, 217, 103 |
| 11 | 34.418 | impurity |  | 5.35 | 368, 135, 175, 161, 119, 57, 369, 353, 169 |

**1.**



**2.**



**3.**



**4.**



**5.**



**6.**



**7.**



**8.**



**9.**



**10.**



**11.**

