

Supplementary Data 1. List of the 423 unique glycans, grouped in 15 distinct classes, printed on the array for each screen. For each glycan, the library ID, full name and molecular weight are shown.

| ID | Name | MW (g/mol) |
|------------------------|---|-----------------------|
| Monosaccharides | | |
| 1 | Fuc α -sp3 | 221.3 |
| 3 | Gal β -sp3 | 237.3 |
| 4 | GalNAc α -sp0 | 308.3 |
| 5 | GalNAc α -sp3 | 278.3 |
| 6 | GalNAc β -sp3 | 278.3 |
| 7 | Glc α -sp3 | 237.3 |
| 9 | Glc β -sp3 | 237.3 |
| 10 | GlcNAc β -sp3 | 278.3 |
| 14 | GlcN(Gc) β -sp4 | 293.3 |
| 15 | HOCH ₂ (HOCH) ₄ CH ₂ NH ₂ | 181.2 |
| 19 | ManNAc β -sp4 | 277.3 |
| 20 | Rha α -sp3 | 221.3 |
| 22 | GlcNAc β -sp4 | 277.3 |
| 37 | 3-O-Su-Gal β -sp3 | 317.3 |
| 38 | 3-O-Su-GalNAc α -sp3 | 358.4 |
| 43 | 6-O-Su-GlcNAc β -sp3 | 358.4 |
| 44 | GlcA α -sp3 | 251.2 |
| 45 | GlcA β -sp3 | 251.2 |
| 46 | 6-H ₂ PO ₃ Glc β -sp4 | 316.2 |
| 47 | 6-H ₂ PO ₃ Man α -sp3 | 339.2 |
| 48 | Neu5Ac α -sp3 | 366.4 |
| 49 | Neu5Ac α -sp9 | 471.5 |
| 52 | Neu5Gc α -sp3 | 382.4 |
| 54 | 9-Nac-Neu5Ac α -sp3 | 407.4 |
| 55 | 3-O-Su-GlcNAc β -sp3 | 358.4 |
| Disaccharides | | |
| 71 | Fuc α 1-2Gal β -sp3 | 383.4 |
| 72 | Fuc α 1-3GlcNAc β -sp3 | 424.5 |
| 73 | Fuc α 1-4GlcNAc β -sp3 | 424.5 |
| 75 | Gal α 1-2Gal β -sp3 | 399.4 |
| 77 | Gal α 1-3GalNAc β -sp3 | 440.5 |
| 78 | Gal α 1-3GalNAc α -sp3 | 440.5 |
| 80 | Gal α 1-3GlcNAc β -sp3 | 440.5 |
| 81 | Gal α 1-4GlcNAc β -sp3 | 440.5 |
| 83 | Gal α 1-6Glc β -sp4 | 398.4 |
| 84 | Gal β 1-2Gal β -sp3 | 399.4 |
| 85 | Gal β 1-3GlcNAc β -sp3 | 440.5 |
| 87 | Gal β 1-3Gal β -sp3 | 399.4 |
| 88 | Gal β 1-3GalNAc β -sp3 | 440.5 |
| 89 | Gal β 1-3GalNAc α -sp3 | 440.5 |
| 93 | Gal β 1-4Glc β -sp4 | 398.4 |
| 94 | Gal β 1-4Gal β -sp4 | 398.4 |
| 97 | Gal β 1-4GlcNAc β -sp3 | 440.5 |
| 100 | Gal β 1-6Gal β -sp4 | 398.4 |

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| 101 | GalNAc α 1-3GalNAc β -sp3 | 481.5 |
| 103 | GalNAc α 1-3GalNAc α -sp3 | 481.5 |
| 104 | GalNAc β 1-3Gal β -sp3 | 440.5 |
| 106 | GalNAc β 1-4GlcNAc β -sp3 | 481.5 |
| 110 | Glc α 1-4Glc β -sp3 | 399.4 |
| 111 | Glc β 1-4Glc β -sp4 | 398.4 |
| 112 | Glc β 1-6Glc β -sp4 | 398.4 |
| 113 | GlcNAc β 1-3GalNAc α -sp3 | 481.5 |
| 114 | GlcNAc β 1-3Man β -sp4 | 439.4 |
| 115 | GlcNAc β 1-4GlcNAc β -Asn | 538.5 |
| 117 | GlcNAc β 1-4GlcNAc β -sp4 | 480.5 |
| 118 | GlcNAc β 1-6GalNAc α -sp3 | 481.5 |
| 119 | Man α 1-2Man β -sp4 | 398.4 |
| 120 | Man α 1-3Man β -sp4 | 398.4 |
| 121 | Man α 1-4Man β -sp4 | 398.4 |
| 122 | Man α 1-6Man β -sp4 | 398.4 |
| 123 | Man β 1-4GlcNAc β -sp4 | 439.4 |
| 124 | Man α 1-2Man α -sp4 | 398.4 |
| 145 | Gal β 1-3(6-O-Su)GlcNAc β -sp3 | 520.5 |
| 146 | Gal β 1-4(6-O-Su)Glc β -sp2 | 465.5 |
| 147 | Gal β 1-4(6-O-Su)GlcNAc β -sp3 | 520.5 |
| 149 | GlcNAc β 1-4(6-O-Su)GlcNAc β -sp2 | 547.5 |
| 150 | 3-O-Su-Gal β 1-3GalNAc α -sp3 | 520.5 |
| 151 | 6-O-Su-Gal β 1-3GalNAc α -sp3 | 520.5 |
| 152 | 3-O-Su-Gal β 1-4Glc β -sp2 | 465.3 |
| 153 | 6-O-Su-Gal β 1-4Glc β -sp2 | 465.3 |
| 155 | 3-O-Su-Gal β 1-3GlcNAc β -sp3 | 520.5 |
| 157 | 3-O-Su-Gal β 1-4GlcNAc β -sp3 | 520.5 |
| 159 | 4-O-Su-Gal β 1-4GlcNAc β -sp3 | 520.5 |
| 161 | 6-O-Su-Gal β 1-3GlcNAc β -sp3 | 520.5 |
| 163 | 6-O-Su-Gal β 1-4GlcNAc β -sp3 | 520.5 |
| 164 | GlcA β 1-3GlcNAc β -sp3 | 454.4 |
| 165 | GlcA β 1-3Gal β -sp3 | 413.4 |
| 166 | GlcA β 1-6Gal β -sp3 | 413.4 |
| 167 | GlcNAc β 1-4-[HOOC(CH ₃)CH]-3-O-GlcNAc β -sp4 | 522.5 |
| 168 | GlcNAc β 1-4-[HOOC(CH ₃)CH]-3-O-GlcNAc β -L-Ala-D-i-Gln-L-Lys | 823.9 |
| 169 | Neu5Ac α 2-3Gal β -sp3 | 528.5 |
| 170 | Neu5Ac α 2-6Gal β -sp3 | 528.5 |
| 171 | Neu5Ac α 2-3GalNAc α -sp3 | 569.6 |
| 172 | Neu5Ac α 2-6GalNAc α -sp3 | 569.6 |
| 174 | Neu5Gc α 2-6GalNAc α -sp3 | 585.6 |
| 176 | 3-O-Su-Gal β 1-4(6-O-Su)Glc β -sp2 | 567.5 |
| 177 | 3-O-Su-Gal β 1-4(6-O-Su)GlcNAc β -sp2 | 622.6 |
| 178 | 6-O-Su-Gal β 1-4(6-O-Su)Glc β -sp2 | 567.5 |
| 179 | 6-O-Su-Gal β 1-3(6-O-Su)GlcNAc β -sp2 | 608.5 |
| 180 | 6-O-Su-Gal β 1-4(6-O-Su)GlcNAc β -sp2 | 608.5 |
| 181 | 3,4-O-Su ₂ -Gal β 1-4GlcNAc β -sp3 | 622.6 |
| 182 | 3,6-O-Su ₂ -Gal β 1-4GlcNAc β -sp2 | 608.5 |
| 183 | 4,6-O-Su ₂ -Gal β 1-4GlcNAc β -sp2 | 608.5 |

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| 184 | 4,6-O-Su2-Galβ1-4GlcNAcβ-sp3 | 622.6 |
| 186 | Neu5Acα2-8Neu5Acα2-sp3 | 679.6 |
| 189 | 3,6-O-Su2-Galβ1-4(6-O-Su)GlcNAcβ-sp2 | 710.6 |
| 192 | GalNAcβ1-4(6-O-Su)GlcNAcβ-sp3 | 561.5 |
| 193 | 3-O-Su-GalNAcβ1-4GlcNAcβ-sp3 | 561.5 |
| 194 | 6-O-Su-GalNAcβ1-4GlcNAcβ-sp3 | 561.5 |
| 195 | 6-O-Su-GalNAcβ1-4-(3-O-Su)GlcNAcβ-sp3 | 603.5 |
| 196 | 3-O-Su-GalNAcβ1-4(3-O-Su)-GlcNAcβ-sp3 | 663.5 |
| 197 | 3,6-O-Su2-GalNAcβ1-4GlcNAcβ-sp3 | 663.5 |
| 198 | 4,6-O-Su2-GalNAcβ1-4GlcNAcβ-sp3 | 663.5 |
| 199 | 4,6-O-Su2-GalNAcβ1-4-(3-O-Ac)GlcNAcβ-sp3 | 705.5 |
| 200 | 4-O-Su-GalNAcβ1-4GlcNAcβ-sp3 | 561.5 |
| 201 | 3,4-O-Su2-Galβ1-4GlcNAcβ-sp3 | 663.5 |
| 202 | 6-O-Su-GalNAcβ1-4(6-O-Su)GlcNAcβ-sp3 | 663.5 |
| 203 | Galβ1-4(6-O-Su)GlcNAcβ-sp2 | 506.5 |
| 204 | 4-O-Su-GalNAcβ1-4GlcNAcβ-sp2 | 547.5 |
| 205 | Neu5Acα2-6GalNAcβ-sp3 | 569.6 |
| 206 | Neu5Gcα2-3Gal-sp3 | 544.5 |
| Trisaccharides | | |
| 215 | Fuca1-2Galβ1-3GlcNAcβ-sp3 | 586.6 |
| 216 | Fuca1-2Galβ1-4GlcNAcβ-sp3 | 586.6 |
| 217 | Fuca1-2Galβ1-3GalNAcα-sp3 | 586.6 |
| 219 | Fuca1-2Galβ1-4Glcβ-sp4 | 544.5 |
| 220 | Galα1-3Galβ1-4Glcβ-sp2 | 547.5 |
| 222 | Galα1-3Galβ1-4GlcNAcβ-sp3 | 602.6 |
| 224 | Galα1-4Galβ1-4Glcβ-sp3 | 561.5 |
| 225 | Galα1-4Galβ1-4GlcNAc-sp2 | 588.6 |
| 226 | Fuca1-2(Galα1-3)Galβ-sp3 | 545.5 |
| 228 | Galβ1-2Galα1-4GlcNAcβ-sp4 | 601.6 |
| 229 | Galβ1-3Galβ1-4GlcNAcβ-sp4 | 601.6 |
| 231 | Galβ1-4GlcNAcβ1-3GalNAcα-sp3 | 643.6 |
| 232 | Galβ1-4GlcNAcβ1-6GalNAcα-sp3 | 643.6 |
| 233 | Galβ1-3(Fuca1-4)GlcNAcβ-sp3 | 586.6 |
| 234 | Fuca1-3(Galβ1-4)GlcNAcβ-sp3 | 586.6 |
| 235 | Fuca1-2(GalNAcα1-3)Galβ-sp3 | 586.6 |
| 238 | GalNAcβ1-4Galβ1-4Glcβ-sp3 | 602.6 |
| 240 | (Glcα1-4) ₃ β-sp4 | 560.5 |
| 241 | (Glcα1-6) ₃ β-sp4 | 560.5 |
| 246 | GlcNAcβ1-2Galβ1-3GalNAcα-sp3 | 643.6 |
| 247 | GlcNAcβ1-3Galβ1-3GalNAcα-sp3 | 643.6 |
| 248 | GlcNAcβ1-3Galβ1-4Glcβ-sp2 | 588.6 |
| 250 | GlcNAcβ1-3Galβ1-4GlcNAcβ-sp3 | 643.6 |
| 251 | GlcNAcβ1-4Galβ1-4GlcNAcβ-sp2 | 629.6 |
| 252 | GlcNAcβ1-4GlcNAcβ1-4GlcNAcβ-sp4 | 683.6 |
| 253 | GlcNAcβ1-6Galβ1-4GlcNAcβ-sp2 | 629.6 |
| 254 | Galβ1-3(GlcNAcβ1-6)GalNAcα-sp3 | 643.6 |
| 255 | GlcNAcβ1-3(GlcNAcβ1-6)GalNAcα-sp3 | 684.7 |
| 258 | Manα1-3(Manα1-6)Manβ-sp4 | 560.5 |
| 262 | Galβ1-3GalNAcβ1-3Gal-sp4 | 601.6 |

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| 264 | Galβ1-4Galβ1-4GlcNAc-sp3 | 602.6 |
| 287 | 3-O-Su-Galβ1-3(Fuca1-4)GlcNAcβ-sp3 | 666.7 |
| 288 | Fuca1-3(3-O-Su-Galβ1-4)GlcNAcβ-sp3 | 666.7 |
| 289 | Galα1-3(Neu5Acα2-6)GalNAcα-sp3 | 731.7 |
| 290 | Galβ1-3(Neu5Acα2-6)GalNAcα-sp3 | 731.7 |
| 292 | Neu5Acα2-3Galβ1-3GalNAcα-sp3 | 731.7 |
| 293 | Neu5Acα2-3Galβ1-4Glcβ-sp3 | 690.7 |
| 294 | Neu5Acα2-3Galβ1-4Glcβ-sp4 | 689.6 |
| 295 | Neu5Acα2-6Galβ1-4Glcβ-sp2 | 676.6 |
| 298 | Neu5Acα2-3Galβ1-4GlcNAcβ-sp3 | 731.7 |
| 299 | Neu5Acα2-3Galβ1-3GlcNAcβ-sp3 | 731.7 |
| 300 | Neu5Acα2-6Galβ1-4GlcNAcβ-sp3 | 731.7 |
| 303 | Neu5Gcα2-3Galβ1-4GlcNAcβ-sp3 | 747.7 |
| 304 | Neu5Gcα2-6Galβ1-4GlcNAcβ-sp3 | 747.7 |
| 306 | 9-Nac-Neu5Acα2-6Galβ1-4GlcNAcβ-sp3 | 788.8 |
| 315 | Neu5Acα2-3Galβ1-4-(6-O-Su)GlcNAcβ-sp3 | 833.8 |
| 317 | Neu5Acα2-3Galβ1-3-(6-O-Su)GalNAcβ-sp3 | 833.8 |
| 318 | Neu5Acα2-6Galβ1-4-(6-O-Su)GlcNAcβ-sp3 | 833.8 |
| 319 | Neu5Acα2-3-(6-O-Su)Galβ1-4GlcNAcβ-sp3 | 833.8 |
| 321 | (Neu5Acα2-8) ₃ -sp3 | 992.9 |
| 323 | Neu5Acα2-6Galβ1-3GlcNAc-sp3 | 731.7 |
| 324 | Neu5Acα2-6Galβ1-3(6-O-Su)GlcNAc-sp3 | 883.8 |
| 331 | Neu5Gcα2-3Galβ1-3GlcNAcβ-sp3 | 747.7 |
| Tetrasaccharides | | |
| 359 | Fuca1-2(Galα1-3)Galβ1-3GlcNAcβ-sp3 | 748.7 |
| 360 | Fuca1-2(Galα1-3)Galβ1-4GlcNAcβ-sp3 | 748.7 |
| 362 | Fuca1-2(Galα1-3)Galβ1-3GalNAcα-sp3 | 748.7 |
| 363 | Fuca1-2(Galα1-3)Galβ1-3GalNAcβ-sp3 | 748.7 |
| 364 | Fuca1-3(Galα1-3Galβ1-4)GlcNAcβ-sp3 | 748.7 |
| 366 | Fuca1-2(GalNAcα1-3)Galβ1-3GlcNAcβ-sp3 | 789.8 |
| 368 | Fuca1-2(GalNAcα1-3)Galβ1-4GlcNAcβ-sp3 | 789.8 |
| 371 | Fuca1-2Galβ1-3(Fuca1-4)GlcNAcβ-sp3 | 732.7 |
| 372 | Fuca1-3(Fuca1-2Galβ1-4)GlcNAcβ-sp3 | 732.7 |
| 373 | Galα1-3Galβ1-4GlcNAcβ1-3Galβ-sp3 | 764.7 |
| 375 | Galα1-4GlcNAcβ1-3Galβ1-4GlcNAcβ-sp3 | 805.8 |
| 376 | Galβ1-3GlcNAcβ1-3Galβ1-4Glcβ-sp4 | 763.7 |
| 377 | Galβ1-3GlcNAcβ1-3Galβ1-3GlcNAcβ-sp2 | 791.8 |
| 378 | Galβ1-3GlcNAcα1-3Galβ1-4GlcNAcβ-sp3 | 805.8 |
| 379 | Galβ1-3GlcNAcβ1-3Galβ1-4GlcNAcβ-sp3 | 805.8 |
| 380 | Galβ1-3GlcNAcα1-6Galβ1-4GlcNAcβ-sp2 | 791.8 |
| 381 | Galβ1-3GlcNAcβ1-6Galβ1-4GlcNAcβ-sp2 | 791.8 |
| 382 | Galβ1-3GalNAcβ1-4Galβ1-4Glcβ-sp3 | 764.7 |
| 383 | Galβ1-4GlcNAcβ1-3Galβ1-4Glcβ-sp2 | 763.7 |
| 385 | Galβ1-4GlcNAcβ1-3Galβ1-4GlcNAcβ-sp3 | 805.8 |
| 387 | Galβ1-4GlcNAcβ1-6Galβ1-4GlcNAcβ-sp2 | 791.7 |
| 388 | Galβ1-3(Galβ1-4GlcNAcβ1-6)GalNAcα-sp3 | 805.8 |
| 389 | GalNAcβ1-3Galα1-4Galβ1-4Glcβ-sp3 | 764.7 |
| 390 | (Glcα1-4) ₄ β-sp4 | 722.7 |

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| 391 | (Glc α 1-6) $_4\beta$ -sp4 | 722.7 |
| 392 | Fuca1-2(GalNAc α 1-3)Gal β 1-3GalNAc α -sp3 | 789.8 |
| 395 | GlcNAc β 1-3(GlcNAc β 1-6)Gal β 1-4GlcNAc β -sp3 | 832.8 |
| 401 | Gal β 1-3GlcNAc β 1-3Gal β 1-3GlcNAc β -sp3 | 805.8 |
| 419 | 3-O-SuGal β 1-4GlcNAc β 1-3Gal β 1-4GlcNAc β -sp3 | 907.8 |
| 420 | 4-O-SuGal β 1-4GlcNAc β 1-3Gal β 1-4GlcNAc β -sp3 | 907.8 |
| 421 | Neu5Ac α 2-3(GalNAc β 1-4)Gal β 1-4Glc β -sp2 | 879.8 |
| 422 | Neu5Ac α 2-3Gal β 1-4GlcNAc β 1-3Gal β -sp3 | 893.9 |
| 423 | Fuca1-3(Neu5Ac α 2-3Gal β 1-4)GlcNAc β -sp3 | 877.9 |
| 426 | Neu5Ac α 2-3Gal β 1-3(Fuca1-4)GlcNAc β -sp3 | 877.9 |
| 428 | Fuca1-3(Neu5Ac α 2-3Gal β 1-4)6-O-Su-GlcNAc β -sp3 | 979.9 |
| 429 | Fuca1-3(Neu5Ac α 2-3(6-O-Su)Gal β 1-4)GlcNAc β -sp3 | 979.9 |
| 433 | Neu5Ac α 2-3Gal β 1-3(Neu5Ac α 2-6)GalNAc α -sp3 | 1044.9 |
| 434 | Neu5Ac α 2-8Neu5Ac α 2-3Gal β 1-4Glc β -sp4 | 1002.9 |
| Penta-Nonasaccharides | | |
| 479 | Fuca1-2Gal β 1-3GlcNAc β 1-3Gal β 1-4Glc β -sp4 | 909.9 |
| 480 | Fuca1-2Gal β 1-3GlcNAc β 1-3Gal β 1-4GlcNAc β -sp2 | 937.9 |
| 481 | Gal α 1-3Gal β 1-4GlcNAc β 1-3Gal β 1-4Glc β -sp4 | 925.8 |
| 483 | Fuca1-3(Fuca1-2(Gal α 1-3)Gal β 1-4)GlcNAc β -sp3 | 894.9 |
| 488 | Gal β 1-4GlcNAc β 1-3(Gal β 1-4GlcNAc β 1-6)GalNAc α -sp3 | 1008.9 |
| 489 | Gal β 1-4GlcNAc β 1-3(GlcNAc β 1-6)Gal β 1-4GlcNAc-sp2 | 994.9 |
| 490 | GlcNAc β 1-3(Gal β 1-4GlcNAc β 1-6)Gal β 1-4GlcNAc β -sp2 | 994.9 |
| 492 | (Glc α 1-6) $_5\beta$ -sp4 | 884.8 |
| 493 | (GlcNAc β 1-4) $_5\beta$ -sp4 | 1090 |
| 495 | Man α 1-3(Man α 1-3(Man α 1-6)Man α 1-6)Man β -sp4 | 966.9 |
| 496 | Fuca1-2Gal β 1-3(Fuca1-4)GlcNAc β 1-3Gal β 1-4Glc β -sp4 | 1056 |
| 497 | Fuca1-3(Fuca1-2Gal β 1-4)GlcNAc β 1-3Gal β 1-4Glc β -sp4 | 1056.0 |
| 498 | (Gal β 1-4GlcNAc β 1-3) $_3$ -sp3 | 1171.1 |
| 499 | Gal β 1-4GlcNAc β 1-3(Gal β 1-4GlcNAc β 1-6)Gal β 1-4GlcNAc-sp2 | 1157.1 |
| 501 | Gal β 1-3GalNAc β 1-3Gal α 1-4Gal β 1-4Glc β -sp4 | 925.8 |
| 502 | (Glc α 1-6) $_6\beta$ -sp4 | 1046.9 |
| 503 | (GlcNAc β 1-4) $_6\beta$ -sp4 | 1293.3 |
| 504 | (A-GN-M)2-3,6-M-GN-GN β -sp4 | 1697.6 |
| 505 | (GN-M)2-3,6-M-GN-GN β -sp4 | 1373.3 |
| 527 | Neu5Ac α 2-3Gal β 1-4GlcNAc β 1-3Gal β 1-4GlcNAc β -sp2 | 1083.0 |
| 528 | Fuca1-3(Neu5Ac α 2-3Gal β 1-4)GlcNAc β 1-3Gal β -sp3 | 1040.0 |
| 529 | Neu5Ac α 2-6(Gal β 1-3)GlcNAc β 1-3Gal β 1-4Glc β -sp4 | 1055.0 |
| 531 | GalNAc β 1-4(Neu5Ac α 2-8Neu5Ac α 2-3)Gal β 1-4Glc-sp2 | 1193.1 |
| 532 | Neu5Ac α 2-8Neu5Ac α 2-8Neu5Ac α 2-3Gal β 1-4Glc-sp2 | 1303.1 |
| 533 | (Neu5Ac α 2-8) $_2$ Neu5Ac α 2-3(GalNAc β 1-4)Gal β 1-4Glc-sp2 | 1506.3 |
| 534 | Neu5Ac α 2-3Gal β 1-4GlcNAc β 1-3Gal β 1-4GlcNAc β -sp3 | 1097.1 |
| 536 | Neu5Ac α 2-3Gal β 1-3GlcNAc β 1-3Gal β 1-4Glc β -sp4 | 1055.0 |
| 537 | Neu5Ac α 2-3Gal β 1-4GlcNAc β 1-3Gal β 1-4Glc β -sp4 | 1055.0 |
| 538 | Le x 1-6'(Le c 1-3')Lac-sp4 | 1389.2 |
| 539 | LacNAc1-6'(Led1-3')Lac-sp4 | 1389.2 |
| 540 | Le x 1-6'(6'SLN1-3')Lac-sp4 | 1566.5 |
| 541 | Le x 1-6'(Le d 1-3')Lac-sp4 | 1535.4 |
| 542 | Le c Le x 1-6'(Le c 1-3')Lac-sp4 | 1754.6 |

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| 543 | Le ^x 1-6'(Le ^b 1-3')Lac-sp4 | 1681.5 |
| Higher Oligosaccharides | | |
| 625 | (GlcAβ1-4GlcNAcβ1-3) ₈ -NH ₂ -ol | 3207.5 |
| 627 | (Sia2-6A-GN-M)2-3,6-M-GN-GNβ-sp4 | 2302.1 |
| Terminal Galactose | | |
| 1A | Galβ1-3GlcNAc | 383.35 |
| 1B | Galβ1-4GlcNAc | 383.35 |
| 1C | Galβ1-4Gal | 342.3 |
| 1D | Galβ1-6GlcNAc | 383.3 |
| 1E | Galβ1-3GalNAc | 383.3 |
| 1F | Galβ1-3GalNAcβ1-4Galβ1-4Glc | 707.6 |
| 1G | Galβ1-3GlcNAcβ1-3Galβ1-4Glc | 707.6 |
| 1H | Galβ1-4GlcNAcβ1-3Galβ1-4Glc | 707.6 |
| 1I | Galβ1-4GlcNAcβ1-6(Galβ1-4GlcNAcβ1-3)Galβ1-4Glc | 1072.9 |
| 1J | Galβ1-4GlcNAcβ1-6(Galβ1-3GlcNAcβ1-3)Galβ1-4Glc | 1072.9 |
| 1K | Galα1-4Galβ1-4Glc | 504.4 |
| 1L | GalNAcα1-O-Ser | 308.2 |
| 1M | Galβ1-3GalNAcα1-O-Ser | 470.4 |
| 1N | Galα1-3Gal | 342.2 |
| 1O | Galα1-3Galβ1-4GlcNAc | 545.4 |
| 1P | Galα1-3Galβ1-4Glc | 504.4 |
| 2A | Galα1-3Galβ1-4Galα1-3Gal | 666.5 |
| 2B | Galβ1-6Gal | 342.3 |
| 2C | GalNAcβ1-3Gal | 383.3 |
| 2D | GalNAcβ1-4Gal | 383.3 |
| 2E | Galα1-4Galβ1-4GlcNAc | 545.4 |
| 2F | GalNAcα1-3Galβ1-4Glc | 545.4 |
| 2G | Galβ1-3GlcNAc β1-3Galβ1-4GlcNAc β1-6(Galβ1- 3GlcNAc β1-3)Galβ1-4Glc | 1438.3 |
| 2H | Galβ1-3GlcNAc β1-3Galβ1-4GlcNAc β1-3Galβ1-4Glc | 1072.9 |
| 18B | Galβ1-3GalNAcβ1-3Galα1-4Galβ1-4Glc | 869.7 |
| 18C | Galβ1-3GalNAcβ1-3Gal | 545.4 |
| 18L | Galβ1-4Glc | 342.3 |
| 18M | Galβ1-4Gal | 360.3 |
| 18N | Galβ1-6Gal | 342.3 |
| Terminal GlcNAc | | |
| 4A | GlcNAcβ1-4GlcNAc | 424.4 |
| 4B | GlcNAcβ1-4GlcNAcβ1-4GlcNAc | 627.5 |
| 4C | GlcNAcβ1-4GlcNAcβ1-4GlcNAcβ1-4GlcNAc | 830.7 |
| 4D | GlcNAcβ1-4GlcNAcβ1-4GlcNAcβ1-4GlcNAcβ1- 4GlcNAcβ1-4GlcNAc | 1237.1 |
| 4E | Bacterial cell wall muramyl disaccharide | 496.4 |
| 4F | GlcNAcβ1-4GlcNAcβ1-4GlcNAcβ1-4GlcNAcβ1-4GlcNAc | 1033.9 |
| 18G | 6-O-Su-GlcNAc | 323.2 |
| 18H | GlcNAc | 221.2 |
| Mannosyl-containing Glycans | | |
| 5A | GlcNAcβ1-2Man | 383.3 |
| 5B | GlcNAcβ1-2Manα1-6(GlcNAcβ1-2Manα1-3)Man | 910.8 |
| 5C | Manα1-2Man | 342.3 |

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| 5D | Man α 1-3Man | 342.3 |
| 5E | Man α 1-4Man | 342.3 |
| 5F | Man α 1-6Man | 342.3 |
| 5G | Man α 1-6(Man α 1-3)Man | 504.4 |
| 5H | Man α 1-6(Man α 1-3)Man α 1-6(Man α 1-3)Man | 828.7 |
| Fucosylated Glycans | | |
| 7A | Fuca1-2Gal β 1-3GlcNAc β 1-3Gal β 1-4Glc | 853.7 |
| 7B | Gal β 1-3(Fuca1-4)GlcNAc β 1-3Gal β 1-4Glc | 853.7 |
| 7C | Gal β 1-4(Fuca1-3)GlcNAc β 1-3Gal β 1-4Glc | 853.7 |
| 7D | Fuca1-2Gal β 1-3(Fuca1-4)GlcNAc β 1-3Gal β 1-4Glc | 999.9 |
| 7E | Gal β 1-3(Fuca1-4)GlcNAc β 1-3Gal β 1-4(Fuca1-3)Glc | 999.9 |
| 7F | Fuca1-2Gal | 326.3 |
| 7G | Fuca1-2Gal β 1-4Glc | 488.4 |
| 7H | Gal β 1-4(Fuca1-3)Glc | 488.4 |
| 7I | Gal β 1-4(Fuca1-3)GlcNAc | 529.4 |
| 7J | Gal β 1-3(Fuca1-4)GlcNAc | 529.4 |
| 7K | GalNAc α 1-3(Fuca1-2)Gal | 529.4 |
| 7L | Fuca1-2Gal β 1-4(Fuca1-3)Glc | 616.2 |
| 7M | Gal β 1-3(Fuca1-2)Gal | 488.4 |
| 7N | Fuca1-2Gal β 1-4(Fuca1-3)GlcNAc | 675.6 |
| 7O | Fuca1-2Gal β 1-3GlcNAc | 529.4 |
| 7P | Fuca1-2Gal β 1-3(Fuca1-4)GlcNAc | 675.6 |
| 8A | SO ₃ -3Gal β 1-3(Fuca1-4)GlcNAc | 631.5 |
| 8B | SO ₃ -3Gal β 1-4(Fuca1-3)GlcNAc | 631.5 |
| 8C | Gal β 1-3GlcNAc β 1-3Gal β 1-4(Fuca1-3)GlcNAc β 1-3Gal β 1- 4Glc | 1219.1 |
| 8D | Gal β 1-4(Fuca1-3)GlcNAc β 1-6(Gal β 1-3GlcNAc β 1-3)Gal β 1- 4Glc | 1219.1 |
| 8E | Gal β 1-4(Fuca1-3)GlcNAc β 1-6(Fuca1-2Gal β 1-3GlcNAc β 1- 3)Gal β 1-4Glc | 1365.2 |
| 8F | Gal β 1-4(Fuca1-3)GlcNAc β 1-6(Fuca1-2Gal β 1-3(Fuca1- 4)GlcNAc β 1- 3)Gal β 1-4Glc | 1511.3 |
| 8G | Gal β 1-4GlcNAc β 1-3Gal β 1-4(Fuca1-3)Glc | 853.7 |
| 8H | Fuca1-2Gal β 1-4(Fuca1-3)GlcNAc β 1-3Gal β 1-4Glc | 999.9 |
| 8I | Fuca1-3Gal β 1-4GlcNAc β 1-3Gal β 1-4(Fuca1-3)Glc | 999.9 |
| 8J | Fuca1-2Gal β 1-4(Fuca1-3)GlcNAc β 1-3(Fuca1-2)Gal β 1-4Glc | 1146.0 |
| 8K | Gal β 1-4(Fuca1-3)GlcNAc β 1-6(Gal β 1-4GlcNAc β 1-3)Gal β 1-4 | 1219.1 |
| 8L | Gal β 1-4(Fuca1-3)GlcNAc β 1-6(Gal β 1-4(Fuca1-3)GlcNAc β 1- 3)Gal β 1-4Glc | 1365.2 |
| 8M | Fuca1-2Gal β 1-4(Fuca1-3)GlcNAc β 1-6(Gal β 1-4GlcNAc β 1- 3)Gal β 1-4Glc | 1365.2 |
| 8N | Gal β 1-3GlcNAc β 1-3Gal β 1-4(Fuca1-3)GlcNAc β 1-6(Gal β 1- 3GlcNAc β 1- 3)Gal β 1-4Glc | 1584.4 |
| 8O | Fuca1-2Gal β 1-3GlcNAc β 1-3Gal β 1-4(Fuca1-3)GlcNAc β 1- 6(Gal β 1- 3GlcNAc β 1-3)Gal β 1-4Glc | 1876.7 |
| 8P | GalNAc α 1-3(Fuca1-2)Gal β 1-4GalNAc | 732.6 |
| 9A | Gal α 1-3(Fuca1-2)Gal β 1-4(Fuca1-3)Glc | 796.7 |
| 9B | Gal β 1-4GlcNAc β 1-6(Fuca1-2Gal β 1-3GlcNAc β 1-3)Gal β 1- 4Glc | 1219.1 |
| 18D | Gal α 1-3(Fuca1-2)Gal β 1-4Glc | 650.5 |
| 18E | GalNAc α 1-3(Fuca1-2)Gal β 1-4(Fuca1-3)Glc | 837.7 |
| 19J | Gal β 1-4(Fuca1-3)GlcNAc β 1-3Gal | 691.6 |
| 19L | Fuca1-2Gal β 1-4(Fuca1-3)GlcNAc β 1-3Gal | 837.7 |
| 19M | Gal β 1-3(Fuca1-4)GlcNAc β 1-3Gal | 691.6 |

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| 19N | Fuca1-2Galβ1-3(Fuca1-4)GlcNAcβ1-3Gal | 837.7 |
| Sialylated Glycans | | |
| 10A | Neu5Acα2-3Galβ1-3(Fuca1-4)GlcNAc | 820.7 |
| 10B | Neu5Acα2-3Galβ1-4(Fuca1-3)GlcNAc | 820.7 |
| 10C | Neu5Acα2-3Galβ1-3GlcNAcβ1-3Galβ1-4Glc | 818.2 |
| 10D | Galβ1-4(Fuca1-3)GlcNAc β1-6(Neu5Acα2-6Galβ1- 4GlcNAc β1-3)Galβ1-4Glc | 1510.3 |
| 10E | Neu5Acα2-3Galβ1-3(Neu5Acα2-6)GalNAc | 965.8 |
| 10H | Neu5Acα2-6Galβ1-3GlcNAcβ1-3Galβ1-4(Fuca1-3)Glc | 1145.0 |
| 10I | Galβ1-3GlcNAcβ1-3(Neu5Acα2-6Galβ1-4GlcNAcβ1- 6)Galβ1-4Glc | 1364.2 |
| 10J | Neu5Acα2-6Galβ1-3GlcNAcβ1-3(Galβ1-4GlcNAcβ1- 6)Galβ1-4Glc | 1364.2 |
| 10K | Neu5Acα2-3Galβ1-4GlcNAc | 674.6 |
| 10L | Neu5Acα2-6Galβ1-4GlcNAc | 674.6 |
| 10M | Neu5Acα2-3Galβ1-3GlcNAcβ1-3Galβ1-4Glc | 998.8 |
| 10N | Galβ1-3(Neu5Acα2-6)GlcNAc β1-3Galβ1-4Glc | 998.8 |
| 10O | Neu5Acα2-6Galβ1-4GlcNAc β1-3Galβ1-4Glc | 998.8 |
| 10P | Neu5Acα2-3Galβ1-3(Neu5Acα2-6)GlcNAc β1-3Galβ1-4Glc | 1290.1 |
| 11A | Neu5Acα2-3Galβ1-4Glc | 633.5 |
| 11B | Neu5Acα2-6Galβ1-4Glc | 633.5 |
| 11C | (Neu5Acα2-8Neu5Ac) _n (<i>n</i> <50) | |
| 18A | Neu5Acα2-3Galβ1-4GlcNAcβ1-3Galβ1-4Glc | 1020.8 |
| 18K | 9-NAc-Neu5Ac | 351.3 |
| 18O | Neu5Gc | 325.2 |
| 19K | Neu5Acα2-3Galβ1-4(Fuca1-3)GlcNAcβ1-3Gal | 1004.8 |
| Carageenan & Glycosaminoglycans | | |
| 12A | Neocarratetraose-41, 3-di-O-sulphate | 834.6 |
| 12B | Neocarratetraose-41-O-sulphate | 732.5 |
| 12C | Neocarrahexaose-24,41, 3, 5-tetra-O-sulphate | 1344.9 |
| 12D | Neocarrahexaose-41, 3, 5-tri-O-sulphate | 1242.9 |
| 12E | Neocarraoctaose-41, 3, 5, 7-tetra-O-sulphate | 1651.2 |
| 12F | Neocarradecaose-41, 3, 5, 7, 9-penta-O-sulphate | 2059.5 |
| 12G | ΔUA-2S-GlcNS-6S | 665.4 |
| 12H | ΔUA-GlcNS-6S | 563.3 |
| 12I | ΔUA-2S-GlcNS | 563.3 |
| 12J | ΔUA-2S-GlcNAc-6S | 605.3 |
| 12K | ΔUA-GlcNAc-6S | 503.3 |
| 12L | ΔUA-2S-GlcNAc | 503.3 |
| 12M | ΔUA-GlcNAc | 401.3 |
| 12N | ΔUA-GalNAc-4S (Delta Di-4S) | 503.3 |
| 12O | ΔUA-GalNAc-6S (Delta Di-6S) | 503.3 |
| 12P | ΔUA-GalNAc-4S,6S (Delta Di-disE) | 605.3 |
| 13A | ΔUA-2S-GalNAc-4S (Delta Di-disB) | 605.3 |
| 13B | ΔUA-2S-GalNAc-6S (Delta Di-disD) | 605.3 |
| 13C | ΔUA-2S-GalNAc-4S-6S (Delta Di-tisS) | 707.4 |
| 13D | ΔUA-2S-GalNAc-6S (Delta Di-UA2S) | 503.3 |
| 13E | ΔUA-GlcNAc (Delta Di-HA) | 401.3 |
| 13F | (GlcAβ1-3GlcNAc β1-4) _n (<i>n</i> =4) | |
| 13G | (GlcAβ1-3GlcNAc β1-4) _n (<i>n</i> =8) | |
| 13H | (GlcAβ1-3GlcNAc β1-4) _n (<i>n</i> =10) | |

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| 13I | (GlcA β 1-3GlcNAc β 1-4) _n (<i>n</i> =12) | |
| 13J | (GlcA/IdoA α / β 1-4GlcNAc α 1-4) _n (<i>n</i> =200) | |
| 13K | (GlcA/IdoA β 1-3(\pm 4/6S)GalNAc β 1-4) _n (<i>n</i> <250) | |
| 13L | ((\pm 2S)GlcA/IdoA α /b1-3(\pm 4S)GalNAc β 1-4) _n (<i>n</i> <250) | |
| 13M | (GlcA/IdoA β 1-3(\pm 6S)GalNAc β 1-4) _n (<i>n</i> <250) | |
| 13N | HA - 4 | 775 |
| 13O | HA - 6 | 1155.6 |
| 13P | HA - 8 | 1534.7 |
| 14A | HA 10 | 1913.8 |
| 14B | HA-12 | 2293.4 |
| 14C | HA-14 | 2672.5 |
| 14D | HA-16 | |
| 14E | HA 30000 Da | |
| 14F | HA 107000 Da | |
| 14G | HA 190000 Da | |
| 14H | HA 220000 Da | |
| 14I | HA 1600000 Da | |
| 14J | Heparin sulfate | |
| 14K | β 1-3Glucan | |
| 14L | Chondroitin disaccharide Δ di-OS, sodium salt | 401.3 |
| 14M | Δ UA \rightarrow 2S-GlcN-6S | 541.3 |
| 14N | Δ UA \rightarrow GlcN-6S | 439.3 |
| 14O | Δ UA \rightarrow 2S-GlcN | 439.3 |
| 14P | Δ UA \rightarrow GlcN | 337.2 |
| 18I | GlcA | 194.1 |
| Terminal Glucose Structures | | |
| 18J | 6-O-(H ₂ PO ₄)-Glc | 260.1 |
| 19O | Glc α 1-4Glc α 1-4Glc | 504.4 |
| 19P | Glc α 1-4Glc α 1-4Glc α 1-4Glc | 666.5 |
| Ganglioside Structures | | |
| 17A | GalNAc β 1-4Gal β 1-4Glc | 545.4 |
| 17B | Gal β 1-3GalNAc β 1-4Gal β 1-4Glc | 707.6 |
| 17C | Gal β 1-3GalNAc β 1-4(Neu5Ac α 2-8Neu5Ac α 2-8 Neu5Ac α 2- 3)Gal β 1-4Glc | 1647.3 |
| 17D | Neu5Ac α 2-8Neu5Ac α 2-3Gal β 1-3GalNAc β 1-4(Neu5Ac α 2- 3)Gal β 1-4Glc | 1647.3 |
| 17E | Gal β 1-3GalNAc β 1-4(Neu5Ac α 2-8Neu5Ac α 2-3)Gal β 1-4Glc | 1334.0 |
| 17F | Neu5Ac α 2-3Gal β 1-3GalNAc β 1-4(Neu5Ac α 2-3)Gal β 1-4Glc | 1334.0 |
| 17G | Neu5Ac α 2-3Gal β 1-3GalNAc β 1-4Gal β 1-4Glc | 1020.8 |
| 17H | Gal β 1-3GalNAc β 1-4(Neu5Ac α 2-3)Gal β 1-4Glc | 1020.8 |
| 17I | Fuc α 1-2Gal β 1-3GalNAc β 1-4(Neu5Ac α 2-3)Gal β 1-4Glc | 1168.0 |
| 17J | GalNAc β 1-4(Neu5Ac α 2-8Neu5Ac α 2-8Neu5Ac α 2-3)Gal β 1- 4Glc | 1485.1 |
| 17K | GalNAc β 1-4(Neu5Ac α 2-8Neu5Ac α 2-3)Gal β 1-4Glc | 1171.9 |
| 17L | GalNAc β 1-4(Neu5Ac α 2-3)Gal β 1-4Glc | 858.7 |
| 17M | Neu5Ac α 2-8Neu5Ac β 2-8Neu5Ac α 2-3Gal β 1-4Glc | 1282.0 |
| 17N | Neu5Ac α 2-8Neu5Ac α 2-3Gal β 1-4Glc | 968.7 |
| 17O | Neu5Ac α 2-3Gal β 1-4Glc | 655.5 |
| Complex Type N-Glycans | | |
| 19A | Gal β 1-4GlcNAc β 1-2Man α 1-3(Gal β 1-4GlcNAc β 1-2Man α 1- 6Man) β 1-4GlcNAc β 1-4(Fuc α 1-6)GlcNAc | 1787.0 |

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| 19B | Galβ1-4GlcNAcβ1-2(Galβ1-4GlcNAcβ1-4)Manα1-3(Galβ1- 4GlcNAcβ1-2(Galβ1-4GlcNAcβ1-6)Manα1-6Man)β1- 4GlcNAcβ1-4GlcNAc | 2372.0 |
| 19C | Neu5Acα2-6Galβ1-4GlcNAcβ1-2Manα1-3(Galβ1- 4GlcNAcβ1-2Manα1-6)Manβ1-4GlcNAcβ1-4GlcNAc | 1932.0 |
| 19D | Neu5Acα2-6Galβ1-4GlcNAcβ1-2Manα1-3(Neu5Acα2- 6Galβ1-4GlcNAcβ1-2Manα1-6)Manβ1-4GlcNAcβ1- 4GlcNAc | 2224.0 |
| 19E | Galβ1-4GlcNAcβ1-2Manα1-3(Galβ1-4GlcNAcβ1-2Manα1- 6)Manβ1-4GlcNAcβ1-4GlcNAc | 1641.0 |
| 19F | Neu5Acα2-6Galβ1-4GlcNAcβ1-2Manα1-3(Neu5Acα2- 6Galβ1-4GlcNAcβ1-2Manα1-6)Manβ1-4GlcNAcβ1- 4(Fuca1-6)GlcNAc | 2370.0 |
| 19G | Neu5Acα2-6Galβ1-4GlcNAcβ1-2(Neu5Acα2-6Galβ1- 4GlcNAcβ1-4)Manα1-3(Neu5Acα2-6Galβ1-4GlcNAcβ1- 2Manα1-6)Manβ1-4GlcNAcβ1-4GlcNAc | 2880.5 |
| 19H | GlcNAcβ1-2(GlcNAcβ1-4)Manα1-3(GlcNAcβ1-2Manα1- 6)GlcNAcβ1-4Manβ1-4GlcNAcβ1-4GlcNAc | 1723.5 |