

Table S3: Binding intensities (FU) for labeled LecB protein with glycan array chips v4.1 from the consortium for functional glycomics. Full data is available on the web site (<http://www.functionalglycomics.org/>)

|               | Glycan Structure  | 10 µg/ml<br>Average | 1 µg/ml<br>Average | 0.1 µg/ml<br>Average |
|---------------|---|---------------------|--------------------|----------------------|
| H-di          | Fuca1-2Galβ-Sp8   | 9118                | 1947               | 115                  |
| H_type1       | Fuca1-2Galβ1-3GlcNAcβ1-3Galβ1-4Glcβ-Sp8                                 | 5510                | 1003               | 20                   |
| H-type1       | Fuca1-2Galβ1-3GlcNAcβ1-3Galβ1-4Glcβ-Sp10                                | 3834                | 853                | 21                   |
| H-type1       | Fuca1-2Galβ1-3GlcNAcβ-Sp0   | 4526                | 902                | 29                   |
| H-type1       | Fuca1-2Galβ1-3GlcNAcβ-Sp8   | 3393                | 636                | 12                   |
| H-type1       | Fuca1-2Galβ1-3GlcNAcβ1-3(Galβ1-4GlcNAcβ1-6)Galβ1-4Glc-Sp21              | 6054                | 1009               | 51                   |
| H-type2       | Fuca1-2Galβ1-4GlcNAcβ1-3Galβ1-4GlcNAcβ-Sp0                              | 13494               | 2887               | 284                  |
| H-type2       | Fuca1-2Galβ1-4GlcNAcβ1-3Galβ1-4GlcNAcβ1-3Galβ1-4GlcNAcβ-Sp0             | 15404               | 3167               | 199                  |
| H-type2       | Fuca1-2Galβ1-4GlcNAcβ-Sp0   | 13127               | 2953               | 309                  |
| H-type2       | Fuca1-2Galβ1-4GlcNAcβ-Sp8   | 10059               | 2235               | 132                  |
| H-type3       | Fuca1-2Galβ1-3GalNAcα-Sp8   | 5093                | 984                | 18                   |
| H-type4       | Fuca1-2Galβ1-3GalNAcβ1-3Galα-Sp9  | 2119                | 358                | 14                   |
| H-type4       | Fuca1-2Galβ1-3GalNAcβ1-3Galα1-4Galβ1-4Glcβ-Sp9                          | 12579               | 2452               | 169                  |
| H-type5       | Fuca1-2Galβ1-4Glcβ-Sp0  | 6580                | 1726               | 185                  |
| A-tri         | GalNAcα1-3(Fuca1-2)Galβ-Sp8   | 5986                | 1033               | 66                   |
| A-tri         | GalNAcα1-3(Fuca1-2)Galβ-Sp18  | 6016                | 1079               | 71                   |
| A-type1       | GalNAcα1-3(Fuca1-2)Galβ1-3GlcNAcβ-Sp0                                   | 14                  | 4                  | 2                    |
| A-type2       | GalNAcα1-3(Fuca1-2)Galβ1-4GlcNAcβ-Sp0                                   | 3541                | 651                | 11                   |
| A-type2       | GalNAcα1-3(Fuca1-2)Galβ1-4GlcNAcβ-Sp8                                   | 2581                | 529                | 5                    |
| A-type2       | GalNAcα1-3(Fuca1-2)Galβ1-4GlcNAcβ1-3Galβ1-4GlcNAcβ-Sp0                  | 7514                | 1318               | 93                   |
| A-type2       | GalNAcα1-3(Fuca1-2)Galβ1-4GlcNAcβ1-3Galβ1-4GlcNAcβ1-3Galβ1-4GlcNAcβ-Sp0 | 5471                | 827                | 35                   |
| A-type5       | GalNAcα1-3(Fuca1-2)Galβ1-4Glcβ-Sp0                                      | 2452                | 487                | 10                   |
| A-LewisY      | GalNAcα1-3(Fuca1-2)Galβ1-4(Fuca1-3)GlcNAcβ-Sp0                          | 2348                | 434                | 16                   |
| B-tri         | Galα1-3(Fuca1-2)Galβ-Sp8  | 2419                | 595                | 4                    |
| B-tri         | Galα1-3(Fuca1-2)Galβ-Sp18   | 2447                | 564                | 17                   |
| B-type1       | Galα1-3(Fuca1-2)Galβ1-3GlcNAcβ-Sp0                                      | 1127                | 177                | 5                    |
| B-type1       | Galα1-3(Fuca1-2)Galβ1-3GlcNAcβ-Sp8                                      | 761                 | 67                 | 2                    |
| B-type2       | Galα1-3(Fuca1-2)Galβ1-4GlcNAc-Sp0                                       | 2073                | 443                | 5                    |
| B-type3       | Galα1-3(Fuca1-2)Galβ1-3GalNAcα-Sp8                                      | 65                  | 8                  | 4                    |
| B-type4       | Galα1-3(Fuca1-2)Galβ1-3GalNAcβ-Sp8                                      | 83                  | 6                  | 9                    |
| B-type5       | Galα1-3(Fuca1-2)Galβ1-4Glcβ-Sp0   | 638                 | 178                | 4                    |
| B-LewisY      | Galα1-3(Fuca1-2)Galβ1-4(Fuca1-3)GlcNAcβ-Sp0                             | 2172                | 206                | 13                   |
| B-LewisY      | Galα1-3(Fuca1-2)Galβ1-4(Fuca1-3)GlcNAcβ-Sp8                             | 2972                | 460                | 17                   |
| LewisA        | Galβ1-3(Fuca1-4)GlcNAcβ1-3Galβ1-4GlcNAcβ-Sp0                            | 7682                | 1192               | 60                   |
| LewisA        | Galβ1-3(Fuca1-4)GlcNAcβ-Sp0   | 15130               | 3296               | 228                  |
| LewisA        | Galβ1-3(Fuca1-4)GlcNAcβ-Sp8   | 12765               | 2398               | 166                  |
| Sialyl_LewisA | Neu5Acα2-3Galβ1-3(Fuca1-4)GlcNAcβ-Sp8                                   | 23197               | 5119               | 430                  |
| LewisA_sulfo  | [3OSO3]Galβ1-3(Fuca1-4)GlcNAcβ-Sp8                                      | 15792               | 4167               | 405                  |
| LewisB        | Fuca1-2Galβ1-3(Fuca1-4)GlcNAcβ-Sp8                                      | 7499                | 1291               | 95                   |
| LewisB        | Fuca1-2Galβ1-3(Fuca1-4)GlcNAcβ1-3(Galβ1-4GlcNAcβ1-6)Galβ1-4Glc-Sp21     | 4620                | 973                | 50                   |
| LewisX        | Galβ1-4(Fuca1-3)GlcNAcβ-Sp0   | 3491                | 678                | 23                   |
| LewisX        | Galβ1-4(Fuca1-3)GlcNAcβ-Sp8   | 3883                | 580                | 27                   |
| LewisX        | Galβ1-4(Fuca1-3)GlcNAcβ1-4Galβ1-4(Fuca1-3)GlcNAcβ-Sp0                   | 6346                | 1156               | 63                   |
| LewisX        | Galβ1-3GlcNAcβ1-3(Galβ1-4(Fuca1-3)GlcNAcβ1-6)Galβ1-4Glc-Sp21            | 3016                | 575                | 21                   |
| Sialyl_LewisX | Neu5Acα2-3Galβ1-4(Fuca1-3)GlcNAcβ-Sp0                                   | 2728                | 405                | 21                   |
| Sialyl_LewisX | Neu5Acα2-3Galβ1-4(Fuca1-3)GlcNAcβ-Sp8                                   | 3899                | 652                | 25                   |
| Sialyl_LewisX | Neu5Acα2-3Galβ1-4(Fuca1-3)GlcNAcβ1-3Galβ-Sp8                            | 2178                | 636                | 9                    |
| Sialyl_LewisX | Neu5Acα2-3Galβ1-4(Fuca1-3)GlcNAcβ1-3Galβ1-4GlcNAcβ-Sp8                  | 3911                | 662                | 26                   |
| LewisX_sulfo  | [3OSO3]Galβ1-4(Fuca1-3)GlcNAc-Sp0                                       | 5712                | 1010               | 111                  |
| LewisX_sulfo  | [3OSO3]Galβ1-4(Fuca1-3)GlcNAcβ-Sp8                                      | 6193                | 1088               | 49                   |
| LewisX_sulfo  | Galβ1-4(Fuca1-3)[6OSO3]GlcNAc-Sp0                                       | 3588                | 728                | 26                   |
| LewisY        | Fuca1-2Galβ1-4(Fuca1-3)GlcNAcβ-Sp0                                      | 7491                | 1265               | 76                   |
| LewisY        | Fuca1-2Galβ1-4(Fuca1-3)GlcNAcβ-Sp8                                      | 6219                | 1063               | 27                   |