

Supplementary material

Preparation of dopamine based ordered mesoporous carbon material and its selective enrichment of N-linked glycans

Yameng Zhao,^a Yangyang Gan^a, Lingyi Zhang^{a*}, Zhanying Chu^a, Fan Liu^b, Weibing Zhang^{a*}

^aShanghai Key Laboratory of Functional Materials Chemistry, School of Chemistry and Molecular Engineering, East China University of Science and Technology, Shanghai 200237, (P. R. China)

^bCenter of Analysis and Testing, Nanchang University, Nanchang, Jiangxi 330047, (P. R. China)

* E-mail: zhanglingyi@ecust.edu.cn. Tel: 86-21-64252145 Fax: +86-021-64233161;

weibingzhang@ecust.edu.cn

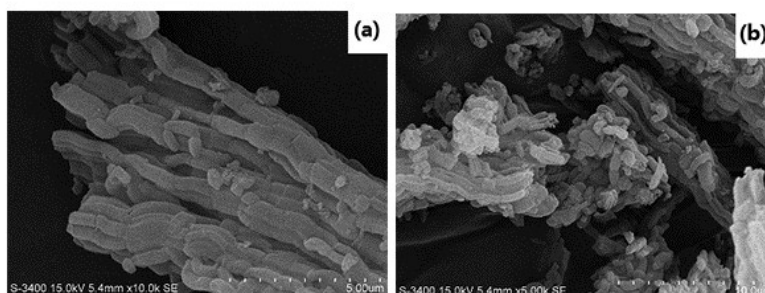


Figure S1. SEM images of SBA-15

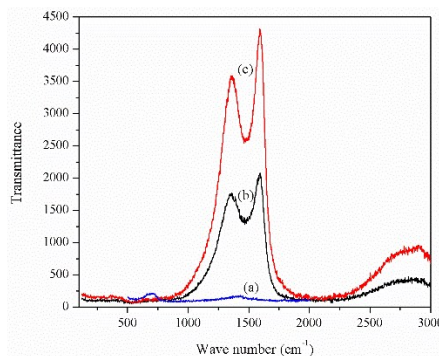


Figure S2. The Raman spectra of (a) SBA-15, (b) SBA-15/DPA, (c) MSC.

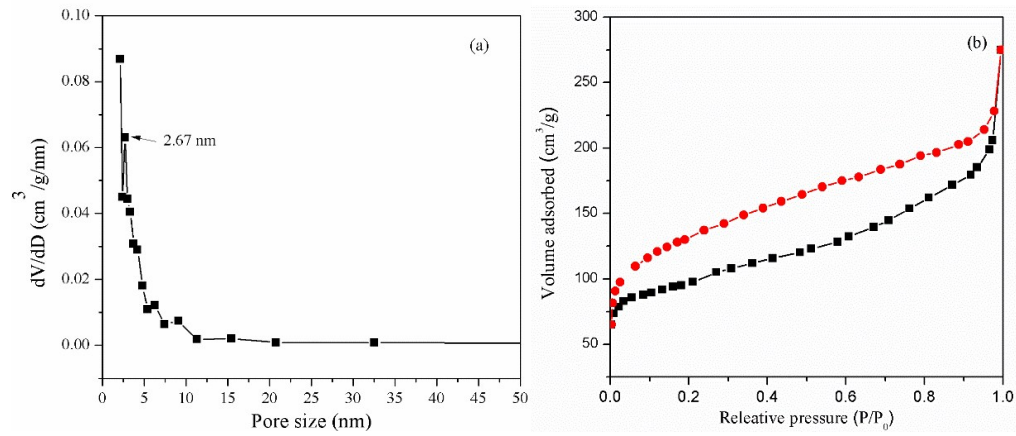


Figure S3. (a) The pore size distribution of the as-prepared MSC material; (b) N_2 adsorption-desorption isotherm measured at 77 K

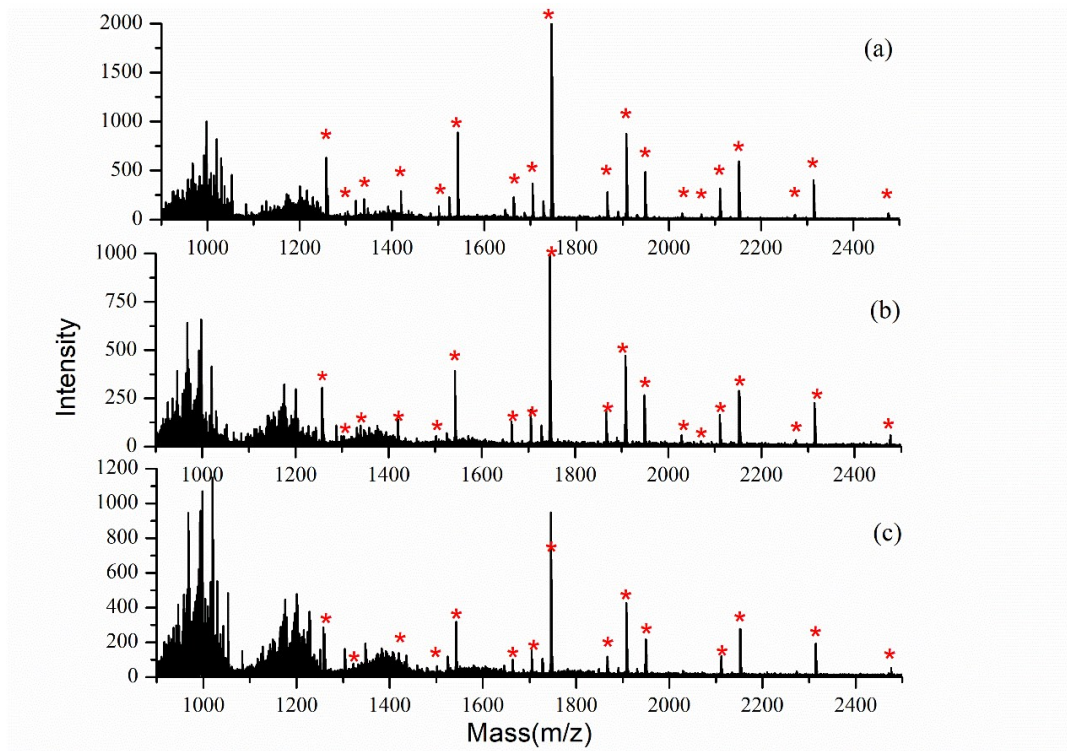
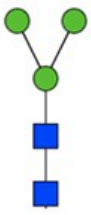
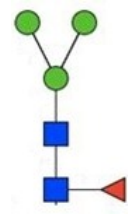
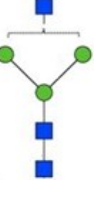
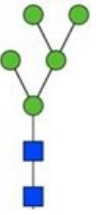
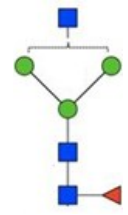
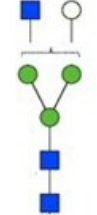
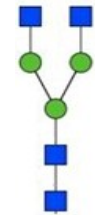
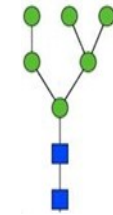
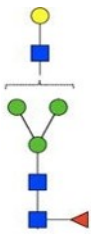
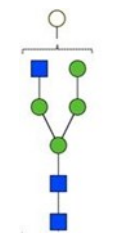
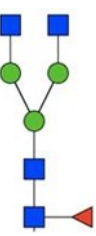
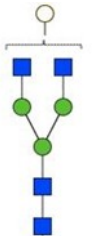
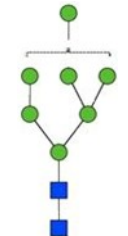
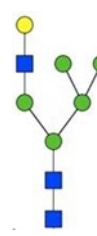
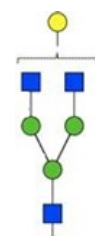
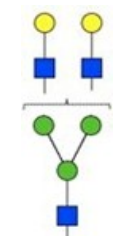
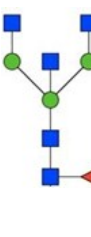
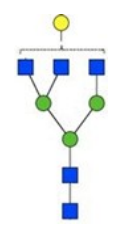
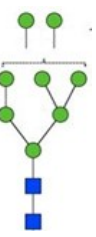
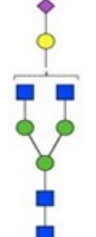
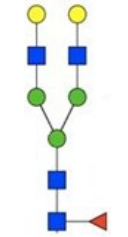
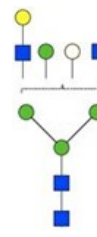
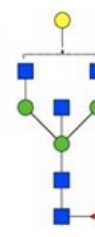
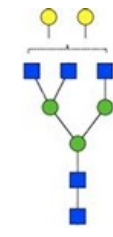


Figure S4. MALDI-TOF MS analysis of N-linked glycans after enrichment by active carbon from OVA digests containing BSA and OVA with different ratios (w/w). The ratio of OVA digests: OVA: BSA are 1: 0: 0 (a), 1: 50: 50 (b) and 1: 100: 100 (c), respectively. The symbol "*" in mass spectra denotes glycans released from ovalbumin

Table S1. The detailed information of N-linked glycan from human serum by MSC material

N-linked glycans								
No.	1	2	3	4	5	6	7	8
m/z	933.3	1079.4	1136.3	1257.1	1282.2	1298.2	1339.2	1419.2
Compositi on	H3N2	H3N2F	H3N3	H5N2	H3N3F1	H4N3	H2N4	H6N2
N-linked glycans								
No.	9	10	11	12	13	14	15	16
m/z	1444.2	1460.2	1485.2	1501.2	1581.2	1622.9	1647.2	1663.2
Compositi on	H4N3 F1	H5N3	H3N4 F1	H4N4	H7N2	H6N3	H4N4 F1	H5N4
N-linked glycans								
No.	17	18	19	20	21	22	23	24
m/z	1688.3	1704.2	1743.2	1792.9	1809.3	1825.2	1850.3	1866.3
Composio n	H3N5 F1	H4N5	H8N2	H4N4 A1	H5N4F1	H6N4	H4N5 F1	H5N5

N-linked glycans						
No.	25	26	27	28	29	30
m/z	1905.9	1976.3	2012.6	2028.3	2122.3	2174.3
Composition	H9N2	H5N4A1	H5N5F1	H6N5	H5N4F1A1	H6N5F1

(N-linked glycans were released by PNGase F and glycan structures were searched from Glyco Workbench. Symbols in composition: H=Hexose; N=N-Acetyl hexosamine; F=Fucose; A=N-Acetylneuramic Acid. ●, Mannose; ●, Galactose; ■, GlcNAc; ◆, Sialic Acid; ▲, Fucose, ○, Mannose or Galactose.)