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## Specific Extraction of Sialic-acid-containing Glycans and Glycopeptides Using Serotonin-bonded Silica

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Serotonin-bonded silica was developed for specific extraction of sialic-acid-containing glycans and glycopeptides. Serotonin, coupled by reductive amination with aldehyde silica particles *via* its ethylamino group, has strong affinity to sialic acid in glycan chain termini. Sialylated glycans trapped on serotonin silica particles are released by washing with ammonium acetate solution, providing highly efficient specific trap and release glycoconjugates. With >100  $\mu\text{mol/g}$  adsorption capacity, the particles are applicable to purify labeled glycans after derivatization with 2-aminopyridine to remove excess reagents. Serotonin silica efficiently enriches sialic-acid-containing glycopeptides from tryptic digests for LC/MS analysis of glycans' heterogeneity in glycoproteins.

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