Supporting Information for

Analyzing Protein Micro-Heterogeneity in Chicken Ovalbumin by High-Resolution Native Mass Spectrometry Exposes Qualitatively and Semi-Quantitatively 59 Proteoforms

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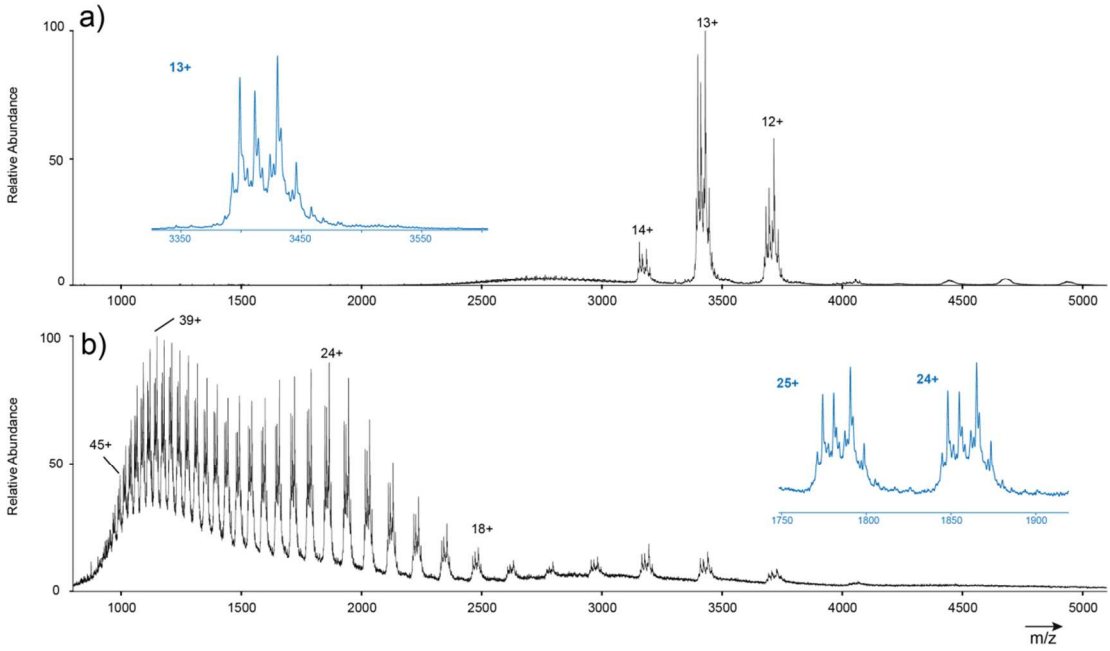
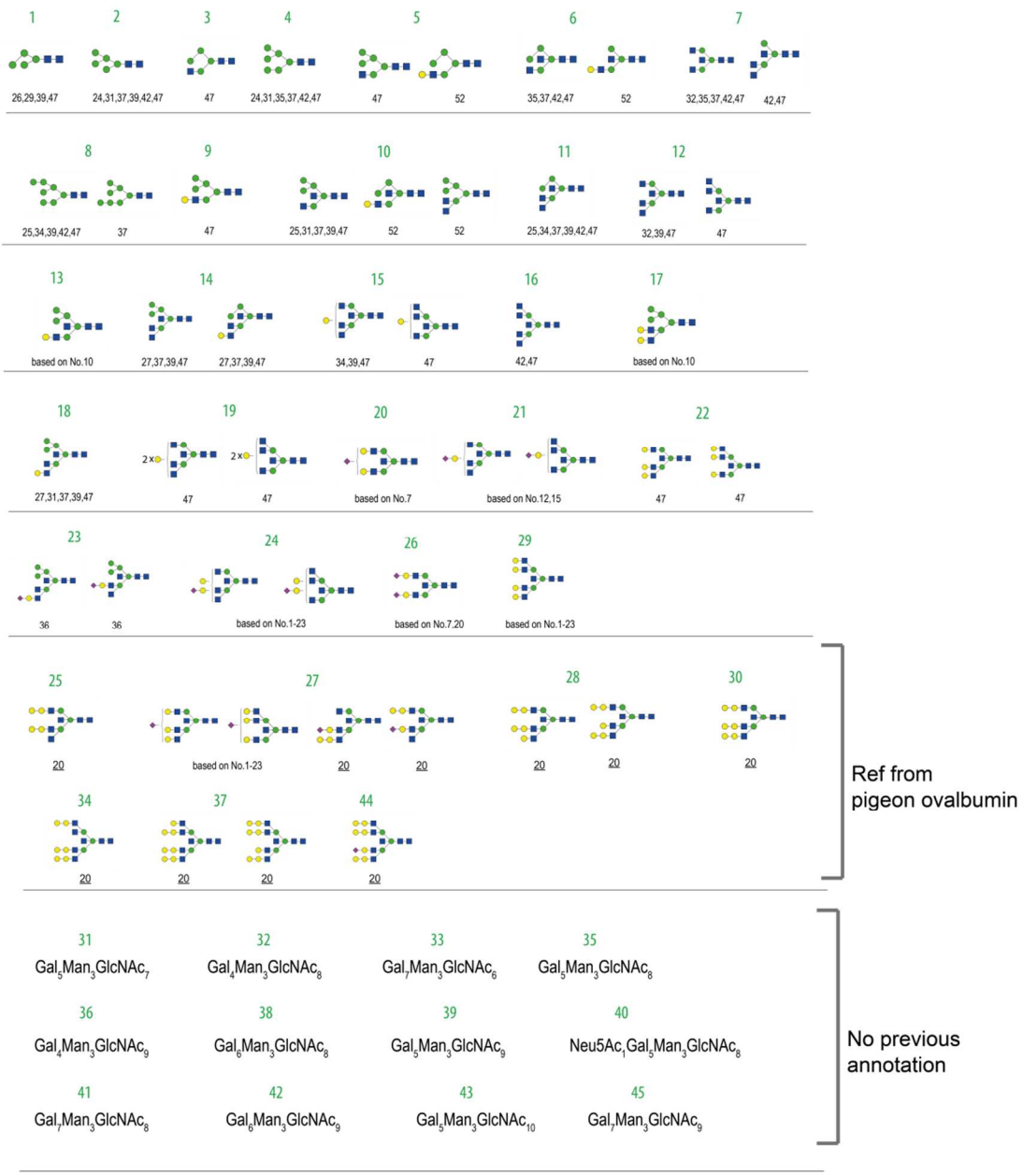
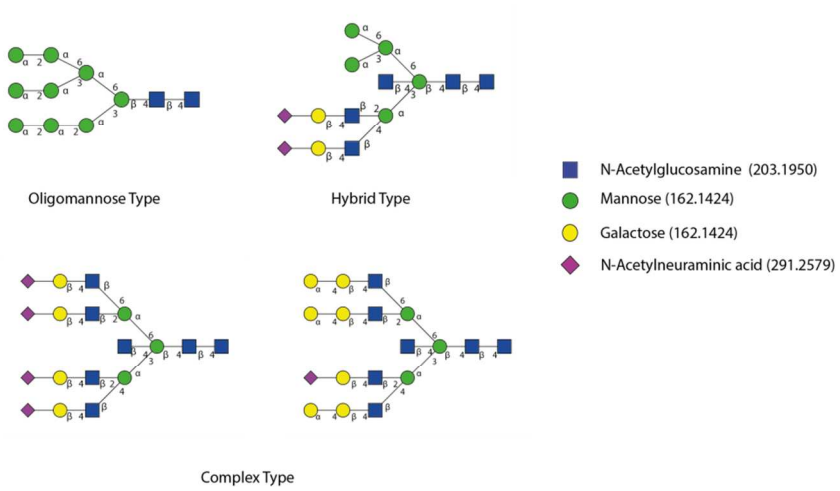


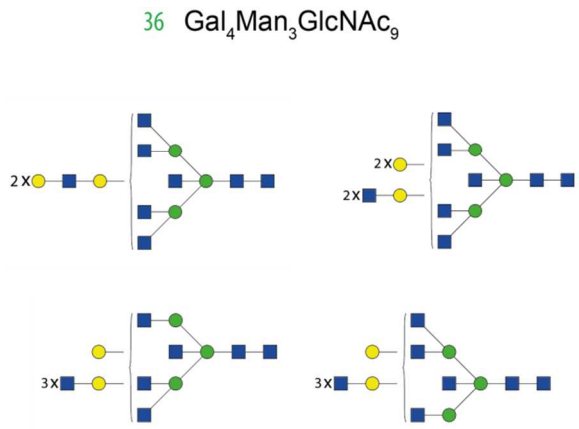
Supporting Information Figure S-1: a) Native ESI-MS spectrum of the unprocessed ovalbumin acquired on a modified ESI-TOF instrument (LCT, Waters, Manchester, UK). Ovalbumin was sprayed from 150 mM aqueous ammonium acetate at pH 7.5. The following parameters are used: Capillary voltage 1300 V; sampling cone 50 V; source backing pressure 7.2 mbar. **b)** Denatured ESI-MS spectrum of the unprocessed ovalbumin acquired on a modified ESI-TOF instrument (LCT, Waters, Manchester, UK). Ovalbumin was sprayed from a water-acetonitrile mixture (1:1 ratio) containing 0.2% formic acid. The following parameters are used: Capillary voltage 1300 V; sampling cone 50 V; source backing pressure 7.2 mbar.



Supporting Information Figure S-2: Survey of assigned N-glycans of chicken ovalbumin based on earlier literature reports (references are shown below the structures) and according to known biosynthetic pathways. Underlined references are from pigeon ovalbumin. For non-assigned structures only brutoformula are given, as explained in the text.



Supporting Information Figure S-3: Annotation of N-glycan structures and linkages used in this study.



Supporting Information Figure S-4: Several hypothetical glycan structures for proteoform 36, i.e. tri- and tetra-antennae with insecting GlcNAc and extensions with polylactosamine (Gal(β1-4)GlcNAc) type units, single Gal residues or Gal(α1-4)Gal epitopes.