

Review of: "Structural analysis of the GPI glycan"

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Potential competing interests: The author(s) declared that no potential competing interests exist.

GPI anchoring plays a vital physiological role, especially for protein transport. However, analysis of GPI anchor has been difficult, which requires large amounts of native protein and specialized techniques including radiolabeling and nuclear magnetic resonance. This technical difficulty limits the investigation of the structure of GPI glycan. To solve this problem, these authors developed a specialized method for structural analysis of the GPI glycan of individual GPI-APs in yeast. Their protocol involves the expression of a specific GPI-AP tagged with GFP, enzymatic release from the cellular membrane fraction, immunopurification, separation by electrophoresis and analysis of the peptides bearing GPI glycans by mass spectrometry after trypsin digestion. Using this method, the authors were able to analyze the structural remodeling of the GPI glycan during its transport to the cell surface. This method is easier to perform and will facilitate the investigation of GPI anchoring.