

Simplify Glycoanalysis with Recombinant Prokaryotic Lectins

Glycosylation is a post-translational modification (PTM) that can influence protein structure and function. It is therefore a Critical Quality Attribute (CQA) for biotherapeutic manufacturing, where it must be closely monitored to assure product safety and efficacy.

Limitations of current glycoanalytical methods

Glycoanalysis is typically performed using HPLC and MS-based approaches that yield highly detailed information about a protein's glycosylation profile. However, these methods are complex, time consuming, and expensive, and can often be limited in terms of throughput.

Automated, high throughput glycoanalysis with RPLs

RPLs can be immobilised on a broad range of biosensors, including those used for performing Biolayer Interferometry (BLI). The Sartorius Octet BLI system overcomes limitations in throughput, performance, and cost associated with technologies such as HPLC and can be combined with RPL biosensors for rapid, label-free glycoanalysis in real time.

Advantages of recombinant prokaryotic lectins for glycoanalysis

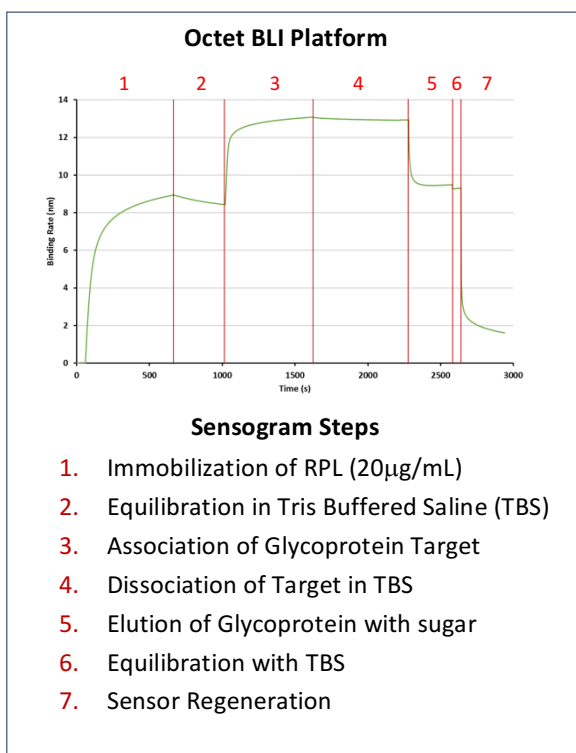
Lectins represent powerful tools for glycoanalysis since they recognise and bind distinct glycans. Recombinant prokaryotic lectins (RPLs) offer superior specificity, consistency, and scalability over commercially available plant-based lectins.

Using RPLs within biomanufacturing promises to enhance the capacity and efficiency of product development and manufacturing through:

- Rapid, real-time, label-free glycoanalysis
- Compatibility with all product classes
- High throughput capacity
- Suitability for process analytical technology (PAT) applications

Glycoanalysis of Enbrel and asialo-Enbrel using sialic acid and galactose-specific RPLs

RPL-Biosensor Sensogram on Sartorius Octet BLI Platform



Detection & Analysis of Enbrel & Asialo-Enbrel Using GSL's Sialic Acid and Galactose Specific RPLs

