Neoglycoproteins

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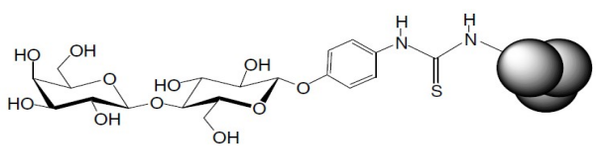
Description

Neoglycoproteins are **glycosylated bovine serum albumin** (BSA) molecules obtained after the conjugation of a phenylisothiocyanate glycosides with the ε-amino groups of lysine residues of BSA. The synthesis of each neoglycoprotein is conducted under a standardized procedure allowing an excellent batch to batch reliability. Each neoglycoprotein is submitted to a complete quality control ensuring a total conformity with the specifications : purity, carbohydrates/protein ratio, labeling and **functionnality assessed by interactions with lectins**.
Mono and di-saccharide neoglycoproteins are **produced routinely and always available (from 0.5 mg to 50 mg)** in unlabeled or fluoresceinylated forms. **Biotinylated or other conjugates as well as more complex neoglycoproteins are available upon request.**



Description	Reference
βChitobiose-BSA	NeoCT
βChitobiose-BSA-F*	NeoCTF
αLFuc-BSA	NeoF
αLFuc-BSA-F	NeoFF
αDGal-BSA	NeoGa
αDGal-BSA-F	NeoGaF
βDGal6P-BSA	NeoGaP
βDGal6P-BSA-F	NeoGaPF
αDGalNAc-BSA	NeoGaN
αDGalNAc-BSA-F	NeoGaNF
αDGlc-BSA	NeoaG
αDGlc-BSA-F	NeoaGF
βGlc-BSA	NeobG
βGlc-BSA-F	NeobGF
βDGlcNAc-BSA	NeoGN
βDGlcNAc-BSA-F	NeoGNF
βDLac-BSA	NeoL
βDLac-BSA-F	NeoLF
αDMan-BSA	NeoM
αDMan-BSA-F	NeoMF
αDMan6P-BSA	NeoMP
αDMan6P-BSA-F	NeoMPF
αLRhamnose-BSA	NeoR
αLRhamnose-BSA-F	NeoRF
BSA-F	NeoBF
Glucitol-BSA-F	NeoGolF

* : F = Fluoresceinylated.

Intended use

Neoglycoproteins are known as “amplifiers” of carbohydrates-proteins interactions. The use of neoglycoproteins as tools to decipher glycoconjugates, carbohydrates binding proteins and more generally proteins-carbohydrates interactions were described in many studies (see bibliography). Neoglycoproteins are used in number of methods including histochemistry, ELISA assays, blotting assays, affinity chromatography, cytochemistry by flow cytometry, confocal or electron microscopy.
Neoglycoproteins can be use for research purposes to:
- **Identify lectins or lectin-like proteins.**
- **Purify lectins or other carbohydrate-binding proteins.**
- **Design new diagnostic tools**.
- **Discover biomarkers.**
- **Target drugs**.
- **Trigger immune response** against carbohydrates moieties.

Benefits

- The **affinity** of the neoglycoproteins is 10^2-10^4 higher than that of the corresponding free sugars.
- The neoglycoproteins are very reliable and **stable products** that can be labeled with great flexibility.
- The **high solubility** in aqueous solutions makes neoglycoproteins very powerfull reagents for glycosciences studies.

Bibliography

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