GLYcoDiag's Newsletter – April 2023

GLYcoDiag is a French company specialized **in glycoscience services and products** for the biotech, pharma, veterinary, cosmetic and diagnostic industries. Our unique experience provides the services and products needed to speed up your projects.
Visit our website for more information www.glycodiag.com

Focus on novels Neoglycoproteins

Neoglycoproteins (glycosylated bovine serum albumin (BSA) molecules) are known as **"amplifiers" of carbohydrates-proteins interactions** and they are used to decipher glycoconjugates, carbohydrates-binding proteins and more generally proteins-carbohydrates interactions. Neoglycoproteins are used in numbers of methods (*e.g.* histochemistry, ELISA assays, blotting assays, affinity chromatography, cytochemistry by flow cytometry, confocal or electron microscopy).

Neoglycoproteins can be used for research purposes to:
- Identify lectins or lectin-like proteins.
- Purify lectins or other glycans-binding proteins.
- Design new diagnostic tools.
- Discover biomarkers.
- Target cells.
- Trigger immune response against carbohydrate moieties.

Tumor associated carbohydrate antigens like neoglycoproteins. Neoglycoprotein functionalized with the following antigen: **T, Tn, STn, Le^x** and **Sle^x** are now available *(See Table below for the neoglycoprotein structure*). These neoglycoproteins are potentially useful for the research and development of some cancer diagnostics and immunotherapies follow-up.

Description	Reference
Neu5Acα6GalNAc-BSA	NeoSTn
Galβ3GalNAc-BSA	NeoT
GalNAc-BSA	NeoTn (= NeoGaN)
Galβ1-4(Fucα1-3)GlcNAcβ1-3GalNAc-BSA	NeoLe^x
Neu5Acα2-3-Galβ1-4(Fucα1-3)GlcNAcβ1-3GalNAc-BSA	NeoSLe^x

Each neoglycoprotein, produced through a standardized procedure of neoglycoprotein synthesis and validated in the GLYcoPROFILE® technology **is available at GLYcoDiag or through our distributor (Clinisciences).**

Contact-us for more information.
Visit our website to have access to the full list of our neoglycoproteins.

GLYcoDiag's last publication

- The melanoma tumor glyco-code impacts human DCs' functionality and dictates clinical outcomes, Sosa Cuevas, E., Roubinet, B., Mouret, S., Thépaut, M., de Fraipont, F., Charles, J., Fieschi, F., Landemarre, L., Chaperot, L., Aspord, C., *Front. Immunol.*, **2023,** 14, *DOI:10.3389/fimmu.2023.1120434*

GLYcoPROFILE® technology were used recently in context of cancer. Indeed, subversion of immunity is a hallmark of cancer development. Dendritic cells (DCs) are strategic immune cells that trigger and shape anti-tumor immune responses, but tumor cells exploit their versatility to subvert their functions. Tumor cells harbor unusual glycosylation patterns, which can be sensed through glycan-binding receptors (lectins) expressed by immune cells and are crucial for DCs to shape and orientate antitumor immunity. To decrypt the potential link between aberrant glycosylation patterns and immune evasion in tumor cells (melanoma), we investigated their "glyco-code", and depicted its impact on patients' clinical outcome and DC subsets' functionality.

This GLYcoPROFILE study was performed with the help of GLYcoDiag Cells LEcPROFILE® kit (Ref: LKCellsE).

Mark on your calendar

- GLYcoDiag will be present in the next **21st European Carbohydrate Symposium (Eurocarb21) from 9th - 13th July 2023 at Paris (France)** and will present through oral communication the application studies of the last LEctPROFILE® kits developed.