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In vivo kinetics and biodistribution analysis of neoglycoproteins: Effects of chemically introduced glycans on proteins

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Abstract

Biodistribution and in vivo kinetics analysis of chemically prepared neoglycoproteins are reviewed. Various mono- and oligosaccharides were conjugated onto the protein surface by use of chemical methods. Their kinetic and organ-specific accumulation have extensively been studied after intravenous injection and analyzed by conventional dissection studies, as well as noninvasive methods, such as SPECT, PET, or fluorescence imaging. These studies clearly show the glycan-structure dependency on protein kinetics, which will provide promising possibilities for pharmacological and diagnostic applications. © 2014 Springer Science+Business Media.

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Keywords

Albumin, Bioconjugation, Biodistribution, Chemical reaction, In vivo imaging, N-Glycans, Neoglycoprotein, Tumor targeting