

Title (en)
METHOD FOR ENHANCING GLYCOPROTEIN STABILITY.

Title (de)
VERFAHREN ZUR VERBESSERUNG DER GLYKOPROTEINSTABILITÄT.

Title (fr)
PROCEDE POUR AMELIORER LA STABILITE DES GLYCOPROTEINES.

Publication
EP 0272253 A4 19900205 (EN)

Application
EP 86902150 A 19860307

Priority
US 8600495 W 19860307

Abstract (en)
[origin: WO8705330A1] A method for modifying eukaryotic and prokaryotic proteins to extend their in vivo circulatory lifetimes. In the preferred embodiment, enzymatic and/or chemical treatments are used to produce a modified protein carrying one or more covalently attached trisaccharide, sialic acid-->galactose-->N-acetylglucosamine--> (SA-->Gal-->GlcNAc-->), or tetrasaccharide (SA-->Gal-->GlcNAc-->GlcNAc-->)moieties. The method can be applied to any natural or recombinant protein possessing asparagine-linked oligosaccharides or to any non-glycosylated protein that can be chemically or enzymatically derivatized with the appropriate carbohydrate units. Following injection into an animal, the modified glycoproteins are protected from premature clearance by cells of the liver and reticulo-endothelial system which recognize and rapidly internalize circulating glycoproteins with carbohydrate containing terminal Gal, GlcNAc, fucose or mannose residues. The method can also be used to mask antigenic determinants on foreign proteins which would otherwise produce an immune response or to "target" a protein for recognition by sugar-specific cell surface receptors.

IPC 1-7
C07K 15/14; C12P 21/00

IPC 8 full level
C07K 1/107 (2006.01); **C07K 1/113** (2006.01); **C07K 14/00** (2006.01); **C07K 14/37** (2006.01); **C07K 14/41** (2006.01); **C12P 21/02** (2006.01)

CPC (source: EP)
C07K 1/1077 (2013.01)

Citation (search report)

- [A] US 3847890 A 19741112 - GREEN A, et al
- [A] W.J. LENNURZ: "Biochemistry of Glycoproteins and Proteglycans", 1981, pages 16-22, Plenum Press, New York, US; KORNFIELD & KORNFIELD, Chapter 1: "Structure of glycoproteins and their oligosaccharide units"
- See references of WO 8705330A1

Designated contracting state (EPC)
AT BE CH DE FR GB IT LI NL SE

DOCDB simple family (publication)
WO 8705330 A1 19870911; AU 5133690 A 19900823; AU 5627186 A 19870928; AU 597574 B2 19900607; AU 624487 B2 19920611; DK 583087 A 19871106; DK 583087 D0 19871106; EP 0272253 A1 19880629; EP 0272253 A4 19900205; JP S63502716 A 19881013

DOCDB simple family (application)
US 8600495 W 19860307; AU 5133690 A 19900314; AU 5627186 A 19860307; DK 583087 A 19871106; EP 86902150 A 19860307; JP 50174686 A 19860307