Ludger

Certificate of Analysis

LudgerPure™ Glycopeptides from Porcine Fibrinogen

Cat. # : GPEP-PFibrinogen-01 Lot #: A5AE-03 Size: approx. 500 μg

Description: Trypsin digest of whole porcine fibrinogen glycoprotein. Low molecular weight contaminants removed.

Form: Dry. Dried by centrifugal evaporation from a desalted aqueous solution.

Analysis: Mass spectrometry/C18 HPLC needs to be performed.

Glycan Information

A2F family biantennary glycans with core α(1-6) fucosylation (A2F, A1F, NA2F, and NGA2F) are naturally found as N-linked oligosaccharides conjugated to a wide range of glycoproteins including IgG from several mammalian species [Hamako et al (1993)], porcine vitronectin [Yoneda et al (1993)], porcine thyroglobulin [Charlwood et al (1999)], seminal plasma spermadhesin [Nimtz et al (1999)], and recombinant glycoproteins expressed in mammalian cell lines [Sato et al (1999)]. The truncated core structure M3N2F is also found in glycoproteins of insects and recombinant mammalian glycoproteins expressed in insect cells [Voss et al (1993)]. The structures and possible roles of fucosylated glycans are reviewed by Staudacher et al (1999).
Core α (1-6) fucosylation of glycoprotein glycans is an important process in a number of normal and aberrant biological processes including cell adhesion, neurogenesis, the development and cancers, the natural suppression of cancer metastases, and liver diseases.

Charlwood J, Birrell H, Organ A, Camilleri P (1999)
A chromatographic and mass spectrometric strategy for the analysis of oligosaccharides: determination of the glycan structures in porcine thyroglobulin. *Rapid Commun Mass Spectrom 13:716-23.*

Hamako J, Matsui T, Ozeki Y, Mizuochi T, Titani (1993)

Comparative studies of asparagine-linked sugar chains of immunoglobulin G from eleven mammalian species. *Comp Biochem Physiol [B] 1993 Dec;106(4):949-54.*

Nimtz M, Grabenhorst E, Conradt HS, Sanz L, Calvete JJ (1999)

Structural characterization of the oligosaccharide chains of native and crystallized boar seminal plasma spermadhesin PSP-I and PSP-II glycoforms. *Eur J Biochem 1999 Oct;265(2):703-18.*

Sato Y, Liu C, Wojczyk BS, Kobata A, Spitalnik SL, Endo T (1999)

'Study of the sugar chains of recombinant human amyloid precursor protein produced by Chinese hamster ovary cells'. *Biochim Biophys Acta 1472:344-58.*

Staudacher E, Altmann F, Wilson IB, Marz L (1999)

Fucose in N-glycans: from plant to man. *Biochim Biophys Acta 1999 Dec 6;1473(1):216-36.*

Voss T, Ergulen E, Ahorn H, Kubelka V, Sugiyama K, Maurer-Fogy I, Glossl J (1993)

Expression of human interferon omega 1 in Sf9 cells. No evidence for complex-type N-linked glycosylation or sialylation. *Eur J Biochem 1993 Nov 1;217(3):913-9.*

Yoneda A, Ogawa H, Matsumoto I, Ishizuka I, Hase S, Seno N (1993)

Structures of the N-linked oligosaccharides on porcine plasma vitronectin. *Eur J Biochem 1993 Dec 15;218(3):797-806*