Product Information

Asialoglycophorin from Human Blood Type MN

A9791

Storage Temperature −20 °C

Synonyms: aGP

Product Description

The human MN blood group antigens are carried by glycophorin, the major sialylated protein of the erythrocyte membrane.[1] M and N active glycopeptides have identical amino acid sequences, except at residues 1 and 5, and glycosylated residues 2 to 4, which contain approximately 5 sialic acid groups. Two types of sialylated oligosaccharides have been described in glycophorin:

- The tetrasaccharide (Type I)
- A more complex oligosaccharide containing several terminal sialylated branches on the oligosaccharide (Type II)

Approximately 15 Type I tetrasaccharides are found on the N-terminal half of glycophorin.[2] A single Type II complex chain is found linked to Asn^{26}. Modification of the oligosaccharide of glycophorin by periodate oxidation or alkaline β−elimination, abolishes both M and N reactivity. In addition, the removal of sialic acid from glycophorin destroys M and N activity, which suggests that O-linked oligosaccharides, which contain sialic acid, contribute to the antigenicity of M and N active structures.

Several publications cite use of this product as a standard.[3-7]

The product is supplied as a lyophilized powder containing approximately 40% protein (Lowry). It is predominantly Asialoglycophorin A.

Preparation Instructions

This product is tested for solubility in water at 1 mg/mL.

Storage/Stability

It is recommended to store the product at −20 °C. It is stable for at least 4 years.

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Source material was tested and found negative for antibody to HIV-1/HIV-2, to HCV and for HBSAG.

References

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