



Isolation of novel heptasaccharide from oligosaccharide fraction of Chauri milk

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Abstract

Oligosaccharide components of cells play essential roles in physiological and pathological processes such as molecular recognition, signal transduction, differentiation, and developmental events.¹The milk oligosaccharides recognize cancer associated antigens, used as antimicrobial agents; tumor associated antigens and has physiological significance in infants. Recently Buffalo and Donkey milk oligosaccharides have shown promising immunostimulant activity. The medicinal importance of the Chauri milk in the ancient Indian and Tibetans medicinal system is enormous. It has been found that the amino acid, calcium and vitamin A in Chauri milk are comparatively higher than in cow's milk and yak milk casein could become a resource to generate antihypertensive peptides and be used as multifunctional active ingredients for many value-added functional foods as well as a traditional food protein. We have isolated novel heptasaccharide and used recent technique for structure interpretation like 1D NMR (¹H, ¹³C) 2D NMR (HSQC, COSY, TOCSY) & Mass spectrum.

Key words: NMR Spectroscopy, Mass spectrum, Heptasaccharide, Nienose.

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