



Comparative Study of Casein and Lactose Content of Soya Bean Milk With Buffalo Milk

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Abstract: Milk is an emulsion or colloid of butterfat globules within a water based fluid. In general milk contains about 87 % water, lactose, fat, protein, and minerals. Casein protein is most commonly found in mammalian milk. Carbohydrate present in milk is lactose. It is a disaccharide composed of galactose and glucose. Apart from an animal source, milk can be obtained from a plant source. The most popular varieties of plant milk are soya milk, almond milk, coconut milk, etc. Soya milk is prepared from dried soya beans. Casein content in soya milk is about 1.35%, which is almost 5 times less than casein content of buffalo milk. Lactose content in buffalo milk is almost three times more than that of soya milk. Because of negligible

lactose percentage, soya milk is consumed by lactose intolerant. The nutritional value of soya milk is lower than that of buffalo milk. So, soya milk cannot be used as a substitute for buffalo milk for infants.

Keywords: Milk, casein, lactose, soya bean milk.

Introduction :

Milk is a white liquid produced by mammary glands of mammals. It is the primary source of nutrition for infant mammals (including humans) before they are able to digest other types of food. Early lactation of milk contains colostrum which carries mother's antibodies to its young one and can reduce the risk of many diseases. Milk is composed of protein, carbohydrates, fats, vitamins and minerals. (Composition and structure of milk. Dairy Chemistry and Physics, University of Guelph, 21 July 2009 Pg. 36–52.)

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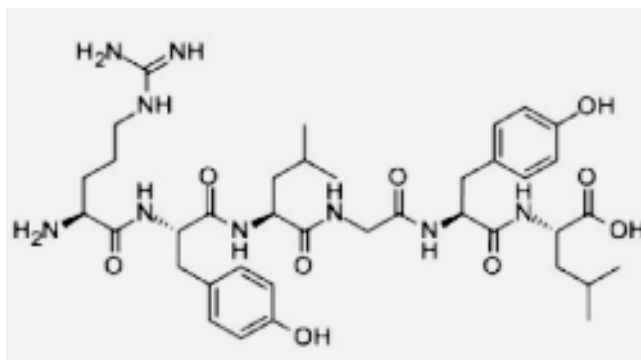


Fig. 1. Structure of casein protein