OBJECTIVE

Milk contains a heterogenous mixture of proteins. Normal cow and buffalo milk contains about 3.5% proteins. The concentration changes significantly during lactation, especially during first few days of post-partum. The natural function of the milk protein is to supply the young mammals with the essential amino acids required for the development of muscular and other protein containing tissues and with a number of biologically active proteins i.e., immunoglobulin, vitaminbinding-metal-binding proteins and various hormones. The proteins in milk can be broadly classified in to casein and whey proteins. In addition to proteins, milk contains many enzymes. As such the enzymes naturally found in milk play a role not only during the processing but also during their storage. Among the milk enzymes, certain enzymes such as lipase, proteinase, and alkaline phosphotase are of technological importance.

The objective of this unit to understand the importance of milk proteins and enzymes through the following aspects:

General structure of milk proteins Difference between casein and serum protein Different types of casein and their uses Enzymes present in milk and their importance