Milk Composition. Proteins.

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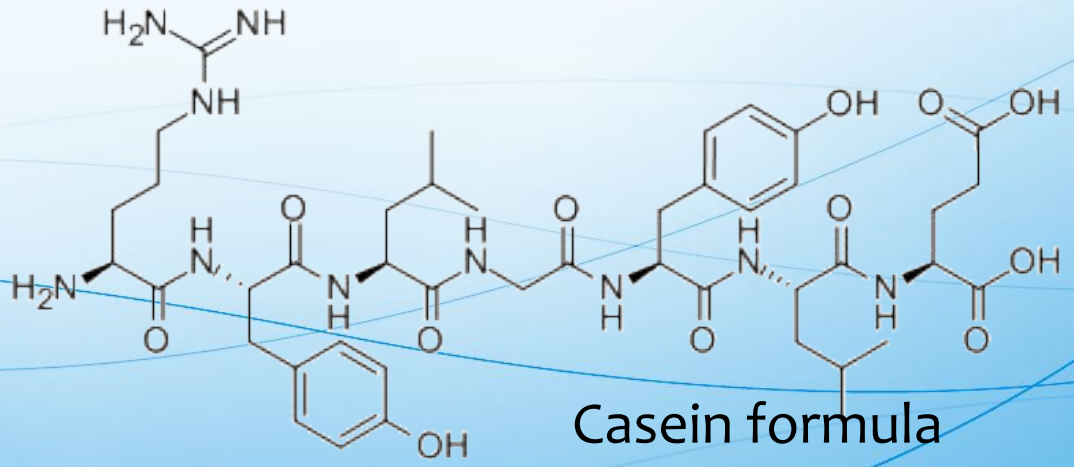
Caseins

Beta-lactoglobulin
and
Alpha-lactalbumin



Casein formula

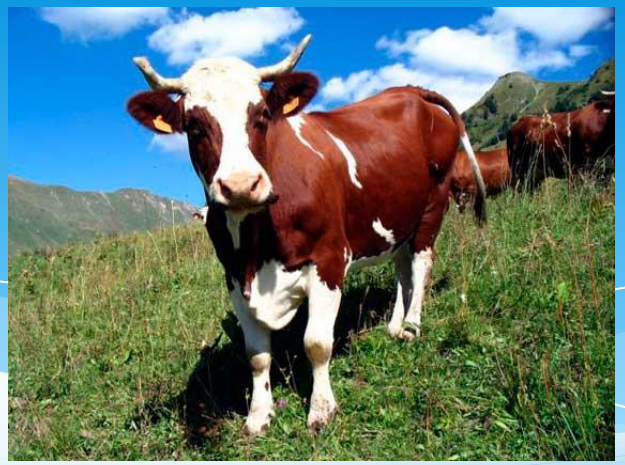
Where?

The major milk proteins are synthesized in the mammary epithelial cells and are only produced by the mammary gland.

But the immunoglobulin and serum albumin in milk are not synthesized by the epithelial cells.

They are absorbed from the blood

High quality protein in cow milk is one of the key reasons why milk is such an important human food.



Caseins have an appropriate amino acid composition that is important for growth and development of the nursing young.

But sometimes most of the whey protein is not digested in the gut. This leads to an allergy to milk proteins

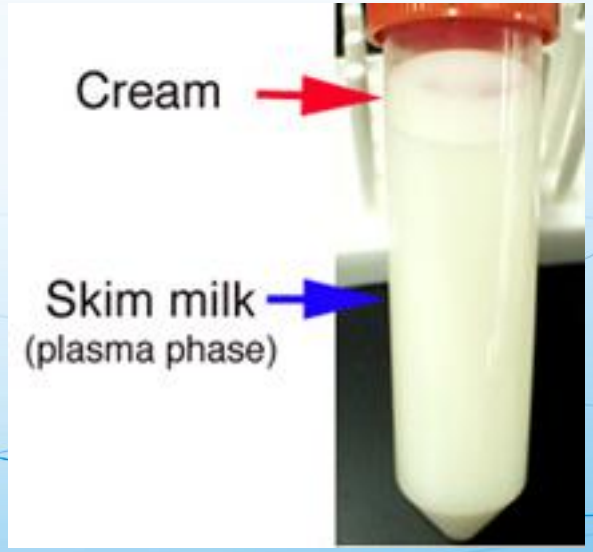
Output casein

Casein may come out of solution, forming the gelatinous material of the **curd.**

This is part of the basis for formation of all non-fluid milk products like **cheese.**

Centrifugation of the skim milk in an ultracentrifuge results in pelleting of the casein

produced **whey**



Casein molecules can also be separated from the whey by precipitation of the casein with acid or by disrupting the micellar structure with a proteolytic enzyme

Specific bacterial cultures are used to establish the conditions for lowered pH

Form the different types of cheese

Thank you for your attention