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ProductInformation

Casein sodium salt
from bovine milk

Product Number **C8654**
Store at Room Temperature

CAS RN 9005-46-3

Product Description

Casein is a phosphoprotein found in milk. This protein has numerous experimental applications including use as a blocking agent in immunochemistry, recovery of enzyme activity from SDS extracted samples, and as a substrate for protease and kinase assays. The major casein subunits may be distinguished by electrophoresis and are designated as α-, β-, γ-, and κ-caseins in order of decreasing mobility at pH 7.0.[1] The approximate casein composition of milk is (g/L): α-s1 (12-15); α-s2 (3-4); β (9-11); and κ (2-4).

The casein subunits vary primarily in molecular weight, isoelectric point, and level of phosphorylation. The following table lists these differences.[2,3]

Subunit	MW (kDa)	pI	Phosphates/ mole	$E^{1\%}$ (280 nm)
α-s1	22-23.7	4.2-4.7	8 -10	10.0-10.1
α-s2	25	---	10 -13	---
β	24	4.6 – 5.1	4 - 5	4.5 – 4.7
κ	19	4.1 – 5.8	1	10.5

The nomenclature for proteins in bovine milk has been published.[2]

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

This product can be suspended in water (50 mg/ml), yielding a turbid, faint yellow solution.

References

1. The Merck Index 11th ed., Entry# 1892.
2. J. Dairy Sci., **67**, 1599-1631 (1984).
3. J. Dairy Sci., **68**, 2195-2205 (1985).

MWM,NSB,RBG,MAM 01/06-1