



A2 Milk

There is an ongoing debate between regular milk (namely A1 milk), and A2 milk, claimed to be a healthier choice.

A2 milk has been registering a relentless economic growth in the last years, starting from Australia, New Zealand, the USA, China and now Europe. If compared to A1, its higher price opens up new challenges for food industries that need to prevent possible frauds in the milk they commercialize.

OUR SERVICE

- Determine whether an unknown milk is A2
- Identify possible contamination of A1 milk into A2 milk
- Identify intentional addition of A1 milk into A2 milk



β-casein

β-casein is the most abundant protein in milk, accounting for 30% of total proteins in bovine milk. **A1** and **A2** are the most common genetic variants of β-caseins and define the type of milk: A2 is the original **β-casein**, while A1 originated from a spontaneous mutation in European herds 5,000-10,000 years ago.

The milk people usually call "**Common milk**" is **A1 type**, and contains A1 only or A1 and A2 β-caseins. **A2 milk** is a type of milk that **exclusively contains the A2 variant of β-casein** and can only derive from genetically selected A2A2 cows.

A1 or A2 Milk?

A1 vs. A2 milk is a matter of public debate for the health benefits attributed to A2 type in comparison to common milk that is blamed to cause inflammation, poor digestive tolerance and illness. Indeed, **A1 and A2 types are digested differently**, and A2 was not associated with health issues reported for its A1 counterpart, but no real benefits have been proven yet.

Regardless of this, **A2 milk has registered a relentless growth by gaining impressive market share** in the dairy and infant formulas sectors in Australia, New Zealand, the USA, China and Europe **no matter the price, which in some cases, has doubled the price of common milk.**

Is your A2 milk a real one?

In this scenario, it is much important and economically significant for food industries and mass distribution to be sure about the type of milk they deal with.

Mérieux NutriSciences is the key partner for food Companies: it developed the **Liquid Chromatography High Resolution Mass Spectrometry** method (LC-HRMS) to determine the presence of **A1 and A2 β-caseins directly in milk** to determine the type of milk and possible contamination or intentional addition.

For more information, please contact our experts by phone at +39 0423 7177 or by e-mail at food.italy@mxns.com

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