

Cow & Gate Simply A2 Protein Milk Questions and Answers

Why have you developed Cow & Gate Simply A2 Protein Milk?

We constantly invest in innovation for our formula milks. We have developed Cow & Gate Simply A2 Protein Milk as part of our Cow & Gate portfolio to allow choice for those people who wish to use an A2 protein milk formula with their babies.

What is Cow & Gate Simply A2 Protein Milk?

Protein is an essential nutrient which contributes to many different physiological functions. Cow's milk contains protein composed of whey (20%) and casein (80%). Of the casein protein, there are different types (alpha, beta, kappa casein)^{1,2} and of the beta-casein, there are several types with A1 and A2 beta-casein being the most prevalent³. Cows can produce milk that is only A1 or only A2 beta-casein, but most cows produce a mixture of A1 and A2 beta-casein in their milk⁴. Which variant(s) are present in cow's milk depends of the genotype of the cow. Milk from the Guernsey breed of cows is mainly A2 beta-casein, but most European cattle produce a mixture of A1 and A2 beta-casein⁵. A2 protein milk is milk that comes from A2 protein milk-producing cows.

How is A2 protein milk different from A1 cow's milk?

A2 protein milk comes from cows that naturally only produce the A2 beta-casein protein. These cows are specially selected and genetically tested to ensure they only produce the A2 beta-casein protein. The A1 and A2 beta-casein proteins are long chains of amino acids that are identical apart from the position of one amino acid: A1 has histadine at position 67 of the amino acid chain, and A2 beta-casein has proline at position 67 of the amino acid chain⁶. The difference this makes is very subtle. These large protein chains are broken down into shorter peptides which then differ in each milk due to the histadine and proline⁷. The proline prevents cleavage of the chain at this point in A2 protein milk, whereas the histadine can be easily cleaved in A1 milk resulting in a short peptide known as beta-casomorphin7 (BCM-7)⁸.

What is beta-casein?

Cow's milk is casein dominant. Of the casein protein, there are different types (alpha, beta, kappa casein)^{1,2} and of the beta-casein, there are several types with A1 and A2 beta-casein being the most prevalent³. Beta-casein makes up about one-third of the total protein content in milk. It is a source of essential amino acids.

Does breast milk contain beta-casein?

Feeding babies with breastmilk is the best nutrition that they can get and is recommended as a sole source of nutrition for the first six months of life, and then continued on until a child's second birthday. The protein content and structure of human milk differs from cow's milk. Human milk does contain beta-casein, and like A2 protein milk also has a proline at a similar position of the beta-casein chain⁹.

What are the beta-casomorphins (BCMs)?

BCMs are peptides that can be generated from beta-casein by somatic cells, indigenous milk enzymes, industrial processes and digestive enzymes⁶. BCMs released from the digestion of cow's milk and human milk differ in activity in the body tissues. The two most potent bovine BCMs are BCM-5 and BCM-7. Digestion of A1 beta-casein milk produces BCM-7, which is not formed when A2 beta-casein is digested.

BCMs have been identified in blood and urine of humans, but there are no proven negative effects of BCMs in humans.

Which form of beta-casein is in the rest of the Cow & Gate portfolio?

Typically the sources that we use for our products originate from cow's milk and thus contain both A1 and A2 beta-casein.

What is the benefit of using Cow & Gate Simply A2 Protein Milk?

Standard cow's milk is a mix of A1 and A2 beta-casein protein. Some adults report feeling more comfortable after drinking the A2 protein milk compared to standard cow's milk which is a mixture of A1 and A2 beta-casein^{9,10}.

There is no scientific evidence that a formula from A2 beta-casein milk leads to less digestive discomfort.

Is this formula suitable for lactose intolerance?

No, this formula is not suitable for lactose intolerance.

Is this formula suitable for cow's milk protein allergy?

No, this formula is not suitable for cow's milk protein allergy.

Does goat's milk contain A2 beta-casein?

There are 8 beta-casein variants reported in goat's milk. All goat beta-casein variants are different from bovine beta-casein and human beta-casein. The common variant of goat beta-casein resembles A2 beta-casein the most, classifying them as A2-type.

Do babies need to be transitioned onto Cow & Gate Simply A2 Protein Milk?

If parents are aware that their baby is particularly sensitive to change, we recommend that new products are introduced gradually. All of our baby and toddler milks offer something different that could best suit parents and their child. It is completely safe for parents to change their child's formula if they are on a standard feed, and they should be able to transition to this or any of our standard Cow & Gate baby and toddler milks without concern. However, every baby is different and some babies may experience settling issues when changing formula milks due to slightly different tastes, textures and composition. This is normal and any symptoms should be minimal (such as changes in stool frequency and colour). In order to minimise any settling issues in transition, you may wish to discuss transitioning

over to the Cow & Gate Simply A2 protein milk slowly to allow the child to adjust. This can be done using our Formula Transitioning Tool.

What is the shelf life of Cow & Gate Simply A2 Protein Milk?

Cow & Gate Simply A2 Protein Milk has a shelf life of 18 months.

What stages are available for Cow & Gate Simply A2 Protein Milk?

Cow & Gate Simply A2 Protein Milk is available in stages 1, 2 and 3.

When and where will Cow & Gate Simply A2 Protein Milk be available?

Cow & Gate Simply A2 Protein Milk will be available as follows:

1st March 2021 Boots

4th April 2021 Sainsbury's

19th April 2021 Tesco

21st April 2021 Morrisons

5th July 2021 Asda

Ocado and Waitrose to dates to be confirmed

Where can I find more information?

Please contact our HCP Careline for more information on 01225 751098

Please visit our Cow & Gate Simply A2 Protein Milk web links below:

[Cow & Gate Simply A2 First Infant milk](#)

[Cow & Gate Simply A2 Follow On milk](#)

[Cow & Gate Simply A2 Toddler milk](#)

IMPORTANT NOTICE:

Breastfeeding is best. Infant milk is suitable from birth when babies are not breastfed. Follow-on milk is only for babies over 6 months, as part of a mixed diet and should not be used as a breastmilk substitute before 6 months. We advise that the use of formula milks and the decision to start weaning should be made only on the advice of a doctor, dietitian, pharmacist or other professional responsible for maternal and child care based on baby's individual needs. Use Toddler milk as part of a varied, balanced diet from 1 year.

References

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