10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Alpha casein Rabbit pAb

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Catalog # AP94471

Product Information

Application	WB, E
Host	Rabbit
Clonality	Polyclonal
Calculated MW	23 KDa
Physical State	Liquid
Immunogen	Casein from bovine milk
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Secreted.
SIMILARITY	Belongs to the alpha-casein family.
SUBUNIT	Casein contains a fairly high number of proline residues, which do not interact. There are also no disulfide bridges. As a result, it has relatively little tertiary structure. It is relatively hydrophobic, making it poorly soluble in water. It is found in milk as a suspension of particles called "casein micelles" which show only limited resemblance with surfactant-type micellae in a sense that the hydrophilic parts reside at the surface and they are spherical. However, in sharp contrast to surfactant micelles, the interior of a casein micelle is highly hydrated. The caseins in the micelles are held together by calcium ions and hydrophobic interactions. Several models account for the special conformation of casein in the micelles. One of them proposes the micellar nucleus is formed by several submicelles, the periphery consisting of microvellosities of κ-casein. Another model suggests the nucleus is formed by casein-interlinked fibrils. Finally, the most recent model proposes a double link among the caseins for gelling to take place. All three models consider micelles as colloidal particles formed by casein aggregates wrapped up in soluble κ-casein molecules. The isoelectric point of casein is 4.6. Since milk's pH is 6.6, casein has a negative charge in milk. The purified protein is water insoluble. While it is also insoluble in neutral salt solutions, it is readily dispersible in dilute alkalis and in salt solutions such as sodium oxalate and sodium acetate. The enzyme trypsin can hydrolyze off a phosphate-containing peptone. It is used to form a type of organic adhesive.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Casein is the name for a family of related phosphoproteins (αS1, αS2, β, κ). These proteins are commonly found in mammalian milk, making up 80% of the proteins in cow milk and between 20% and 45% of the proteins in human milk. Casein has a wide variety of uses, from being a major component of cheese, to use as a food additive, to a binder for safety matches. As a food source, casein supplies amino acids; carbohydrates; and two inorganic elements, calcium and phosphorus.

Additional Information

Target/Specificity	Mammary gland specific. Secreted in milk.
Dilution	WB=1:500-2000,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Background

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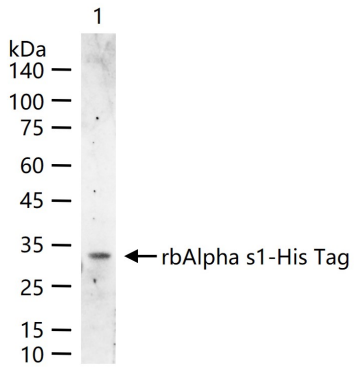
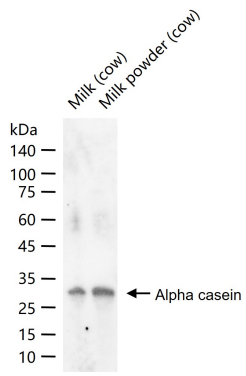
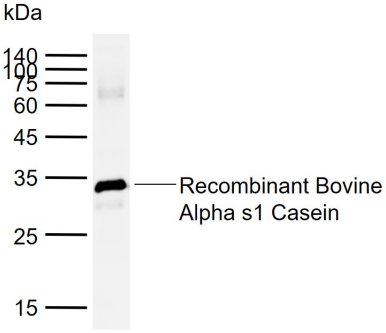
Images



500 ng rbAlpha s1-His protein (bs-42025P) per lane probed with Alpha casein polyclonal antibody respectively, unconjugated (AP94471) at 1:1000 dilution and 4°C overnight incubation. Followed by corresponding conjugated secondary antibody incubation at r.t. for 60 min.



25 ug total protein per lane of various lysates (see on figure) probed with Alpha casein polyclonal antibody, unconjugated (AP94471) at 1:1000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at r.t. for 60 min.



Sample: Lane 1: Recombinant Bovine Alpha s1 Casein Primary: Anti-Alpha casein (AP94471) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 23 kDa Observed band size: 34 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.