

Anti-LACTOPEROXIDASE (Bovine Milk) (SHEEP) Antibody
Lactoperoxidase Antibody
Catalog # ASR4801**Specification****Anti-LACTOPEROXIDASE (Bovine Milk) (SHEEP) Antibody - Product Information**

Host	Sheep
Conjugate	Unconjugated
Target Species	Bovine
Reactivity	Bovine
Clonality	Polyclonal
Application	WB, E, IP, I, LCI
Application Note	Lactoperoxidase antibody has been tested by western blot and is suitable to be assayed against 1.0 ug of Lactoperoxidase [Bovine Milk] in a standard ELISA using Peroxidase conjugated Affinity Purified anti-Sheep IgG [H&L] (Rabbit) code #613-4302 and (ABTS (2,2'-azino-bis-[3-ethylbenthiazoline-6-sulfonic acid]) code #ABTS-100 as a substrate for 30 minutes at room temperature. A working dilution of 1:1,000 to 1:5,000 of the reconstitution concentration is suggested for this product.
Physical State	Lyophilized
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Immunogen	Lactoperoxidase [Bovine Milk]
Reconstitution Volume	100 µL
Reconstitution Buffer	Restore with deionized water (or equivalent)
Preservative	0.01% (w/v) Sodium Azide

Anti-LACTOPEROXIDASE (Bovine Milk) (SHEEP) Antibody - Additional Information**Gene ID** 280844**Other Names**
280844**Purity**

Anti-LACTOPEROXIDASE is an IgG fraction antibody purified from monospecific antiserum by a multi-step process which includes delipidation, salt fractionation and ion exchange chromatography followed by extensive dialysis against the buffer stated above. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Sheep Serum as well as purified and partially purified Lactoperoxidase [Bovine Milk]. Cross reactivity against Lactoperoxidase from other tissues and species may occur but have not been specifically determined.

Storage Condition

Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Precautions Note

This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-LACTOPEROXIDASE (Bovine Milk) (SHEEP) Antibody - Protein Information**Name** LPO**Function**

Heme-containing oxidoreductase which catalyzes the conversion of thiocyanate (SCN(-)) into antimicrobial agent hypothiocyanous acid (OSCN(-)) in the presence of hydrogen peroxide (H₂O₂) (Probable) (PubMed:5338806). Also involved in the conversion of iodide (I(-)) into hypoiodite (IO(-)) in the presence of H₂O₂ (Probable) (PubMed:354515). Responsible for the inactivation of a wide range of micro-organisms and hence, important component of defense mechanism (PubMed:354515, PubMed:5338806). The lactoperoxidase-SCN(-)-H₂O₂ system shows antibacterial properties against some streptococci strains (PubMed:5338806). The lactoperoxidase-I(-)-H₂O₂ system shows antibacterial properties against E.coli (PubMed:354515). May protect the udder from infection and may promote growth in newborns (By similarity). May be implicated in airway host defense against infection (By similarity). May contribute to maintaining an appropriate H₂O₂ cellular level, therefore protecting cells from H₂O₂-caused injuries and inflammation (By similarity).

Cellular Location

Secreted. Cytoplasm {ECO:0000250|UniProtKB:Q5SW46}

Tissue Location

Mammary gland; milk..

Anti-LACTOPEROXIDASE (Bovine Milk) (SHEEP) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-LACTOPEROXIDASE (Bovine Milk) (SHEEP) Antibody - Images

Anti-LACTOPEROXIDASE (Bovine Milk) (SHEEP) Antibody - Background

Lactoperoxidase is an antimicrobial agent which utilizes hydrogen peroxide and thiocyanate (SCN) to generate the antimicrobial substance hypothiocyanous acid (HOSCN). It may protect the udder from infection and promote growth in newborn calves. It inhibits growth of the following bacterial species: E.coli, K.pneumoniae, P.aeruginosa, S.sonnei, S.saphrophyticus, S.epidermidis, and S.dysenteriae.