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Anti-LACTOPEROXIDASE (Bovine Milk) (SHEEP) Antibody

Lactoperoxidase Antibody
Catalog # ASR3830

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	**Anti-Lactoperoxidase has been tested in western blot and is suitable in ELISA and immunoprecipitation. Specific conditions for reactivity should be optimized by the end user.**
Physical State	**Lyophilized**
Buffer	**0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2**
Immunogen	**Lactoperoxidase [Bovine Milk]**
Reconstitution Volume	**2.0 mL**
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
This product was prepared from monospecific antiserum by a delipidation and defibrination. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-sheep serum, 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 Cytomety
- Cell Culture

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

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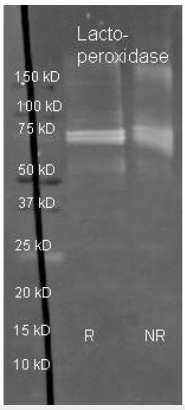

Rockland Sheep anti Lactoperoxidase antibody (200-601-146 lot 5243) was used to detect Lactoperoxidase under reducing (R) and non-reducing (NR) conditions. Reduced samples of purified target proteins contained 4% BME and were boiled for 5 minutes. Samples of ~1ug of protein per lane were run by SDS-PAGE. Protein was transferred to nitrocellulose and probed with 1:3000 dilution of primary antibody (ON 4 C in MB-070). Detection shown was using Dylight 488 conjugated secondary antibody (613-741-168 1:10K in TBS/MB-070 1 hr RT). Images were collected using the BioRad VersaDoc System

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.