

Anti-LPO Antibody Picoband®

Catalog Number: A01483-2

About LPO

Lactoperoxidase is a peroxidase enzyme secreted from mammary, salivary and other mucosal glands including the lungs, bronchii and nose that functions as a natural and the first line of defense against antibacterial and antiviral agents. Lactoperoxidase is a member of the heme peroxidase family of enzymes. In humans, lactoperoxidase is encoded by the LPO gene. This gene encodes a member of the peroxidase family of proteins. The encoded preproprotein is proteolytically processed to generate the mature enzyme. Following its secretion from salivary, mammary, and other mucosal glands, this enzyme catalyzes the generation of the antimicrobial substance hypothiocyanous acid. This gene is present in a gene cluster on chromosome 17. Alternative splicing results in multiple transcript variants, at least one of which encodes a preproprotein that is proteolytically processed.

Overview

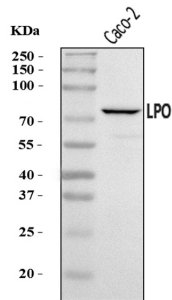
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| Product Name | Anti-LPO Antibody Picoband® |
| Reactive Species | Human |
| Description | Boster Bio Anti-LPO Antibody Picoband® catalog # A01483-2. Tested in IF, ICC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance. |
| Application | IF, ICC, WB |
| Clonality | Polyclonal |
| Formulation | Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ . |
| Storage Instructions | At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing. |
| Host | Rabbit |
| Uniprot ID | P22079 |

Technical Details

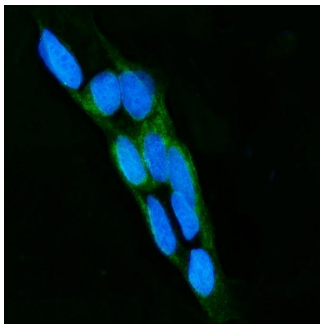
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| Immunogen | A synthetic peptide corresponding to a sequence in the middle region of human LPO. |
| Recommended Detection Systems | Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for ICC. |
| Cross Reactivity | No cross-reactivity with other proteins. |
| Isotype | Rabbit IgG |

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| Form | Lyophilized |
| Concentration | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml. |
| Purification | Immunogen affinity purified. |
| Suggested Dilutions | Western blot, 0.25-0.5 ug/ml, Human Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human |

Anti-LPO Antibody Picoband® (A01483-2) Images



Western blot analysis of LPO using anti-LPO antibody (A01483-2). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Caco-2 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-LPO antigen affinity purified polyclonal antibody (Catalog # A01483-2) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for LPO at approximately 80 kDa. The expected band size for LPO is at 80 kDa.



IF analysis of LPO using anti-LPO antibody (A01483-2). LPO was detected in an immunocytochemical section of Caco-2 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-LPO Antibody (A01483-2) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

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Anti-LPO Antibody

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