

## Anti-MUC4 Antibody Picoband®

Catalog Number: PB9147

### About MUC4

Mucin 4, also known as MUC4, is a mucin protein that in humans is encoded by the MUC4 gene. Like other mucins, Mucin 4 is a high-molecular weight glycoprotein. It is mapped to 3q29. In normal functioning, Mucin 4 is known to play anti-adhesive roles in the body, such as in lubricating the reproductive lining. It is found in the respiratory tract, particularly in the trachea and lung and the digestive tract, in the esophagus and colon, as well as in the visual and auditory systems. Mucin 4 serves to protect and lubricate the epithelium, which facilitates transport and traps foreign particles. It is found to be overexpressed during the luteal phase of menstruation. Mucin 4 may also have a role in fetal morphogenic development.

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### Overview

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name         | Anti-MUC4 Antibody Picoband®                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Reactive Species     | Human, Rat                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Description          | Boster Bio Anti-MUC4 Antibody Picoband® catalog # PB9147. Tested in WB applications. This antibody reacts with Human, Rat. 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          | WB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Clonality            | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Formulation          | Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> , and 0.05 mg NaN <sub>3</sub> .<br>*This antibody is supplied in a stabilized formulation.<br>Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required. |
| Storage Instructions | Store 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 freeze-thaw cycles.                                                                                                                                                                                                                                                                              |
| Host                 | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Uniprot ID           | Q99102                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

## Technical Details

|                               |                                                                                                                                                                                |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Immunogen                     | E.coli-derived human MUC4 recombinant protein (Position: M1249-D1444). Human MUC4 shares 69% and 36% amino acid (aa) sequences identity with mouse and rat MUC4, respectively. |
| Recommended Detection Systems | Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.                                                                                |
| Cross Reactivity              | No cross-reactivity with other proteins                                                                                                                                        |
| Isotype                       | Rabbit IgG                                                                                                                                                                     |
| 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, 0.1-0.5ug/ml, Rat, Human                                                                                                                                         |

## Anti-MUC4 Antibody Picoband® (PB9147) Images



Western blot analysis of MUC4 using anti-MUC4 antibody (PB9147). 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: rat PC-12 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-MUC4 antigen affinity purified polyclonal antibody (Catalog # PB9147) 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 MUC4 at approximately 234 kDa. The expected band size for MUC4 is at 232 kDa.

### Anti-MUC4 Antibody

For Research Use Only. Not for use in diagnostic procedures.