

Anti-LYPD3 Antibody Picoband™

Catalog Number: A08396

About LYPD3

Ly6/PLAUR domain-containing protein 3 is a protein that in humans is encoded by the LYPD3 gene. Ly6 / PLAUR domain-containing protein 3, also known as GPI-anchored metastasis-associated protein C4.4A homolog, Matrigel-induced gene C4 protein, MIG-C4, and LYPD3, is a cell membrane protein that contains two UPAR/Ly6 domains. Human LYPD3 contains two UPAR/Ly6 domains. LYPD3 is expressed in the placenta, skin, and urothelium. It is found in suprabasal keratinocytes of chronic wounds. Weak expression of LYPD3 is found in the esophagus and peripheral blood mononuclear cells. It is found in the majority of primary and metastatic transitional cell carcinomas (TCCs) and as well in breast cancer tissues, but not in adjacent normal tissues. High expression of LYPD3 is found in the tumor component of some noninvasive superficial lesions and invasive and metastatic urothelial cancers. LYPD3 is up-regulated in migrating keratinocytes during epithelisation of incisional skin wounds. LYPD3 supports cell migration. It may be involved in urothelial cell-matrix interactions. It may also be involved in tumor progression.

Overview

Product Name	Anti-LYPD3 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-LYPD3 Antibody Picoband™ catalog # A08396. Tested in ELISA, IF, IHC, WB, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, Flow Cytometry, IF, IHC, WB
Clonality	Polyclonal 1B9
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	O95274

Technical Details

Immunogen	E.coli-derived human ILKAP recombinant protein (Position: E90-H392). Human ILKAP shares 98% and 98.7% amino acid (aa) sequence identity with mouse and rat ILKAP, respectively.
Predicted Reactive Species	Bovine, Canine, Chicken, Primate, Sheep, Xenopus, Zebrafish
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 IHC(P).
Cross Reactivity	No cross reactivity with other proteins.
Isotype	IgG

Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.25-0.5 µg/ml, Human, Mouse, Rat Immunohistochemistry, 1-2 µg/ml, Human, Rat Immunofluorescence, 5 ug/ml, Human Flow Cytometry (Fixed), 1-3 µg/1x10⁶ cells, Human ELISA, 0.1-0.5 µg/ml, Human

Anti-LYPD3 Antibody Picoband™ (A08396) Images

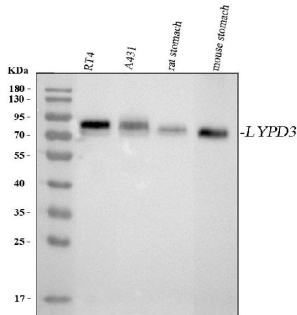


Figure 1. Western blot analysis of LYPD3 using anti-LYPD3 antibody (A08396).

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 RT4 whole cell lysates,

Lane 2: human A431 whole cell lysates,

Lane 3: rat stomach tissue lysates,

Lane 4: mouse stomach tissue 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-LYPD3 antigen affinity purified polyclonal antibody (Catalog # A08396) 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 LYPD3 at approximately 75 kDa. The expected band size for LYPD3 is at 36 kDa.

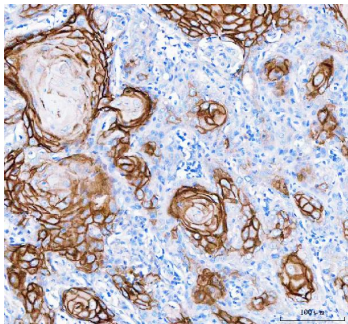


Figure 2. IHC analysis of LYPD3 using anti-LYPD3 antibody (A08396).

LYPD3 was detected in a paraffin-embedded section of human skin cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-LYPD3 Antibody (A08396) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

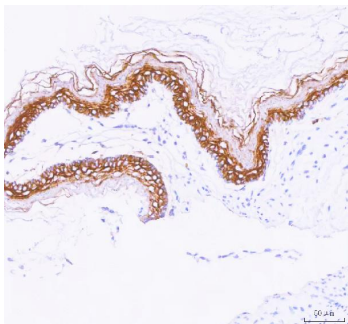


Figure 3. IHC analysis of LYPD3 using anti-LYPD3 antibody (A08396).

LYPD3 was detected in a paraffin-embedded section of rat stomach tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-LYPD3 Antibody (A08396) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

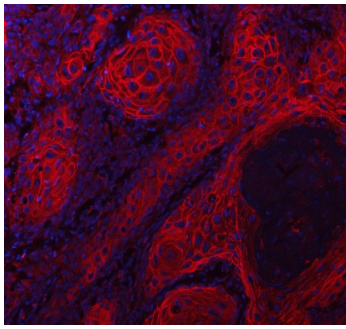


Figure 4. IF analysis of LYPD3 using anti-LYPD3 antibody (A08396).
LYPD3 was detected in a paraffin-embedded section of human skin cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 ug/mL rabbit anti-LYPD3 Antibody (A08396) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:500 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.

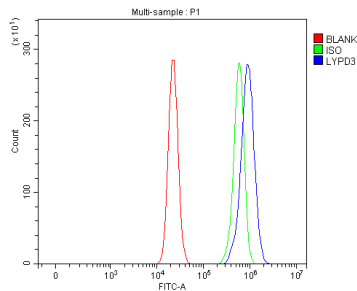


Figure 5. Flow Cytometry analysis of RT4 cells using anti-LYPD3 antibody (A08396).
Overlay histogram showing RT4 cells stained with A08396 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-LYPD3 Antibody (A08396, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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