BOSTER BIOLOGICAL TECHNOLOGY
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# Anti-SURF1 Antibody Picoband®

**Catalog Number:** A03678-2

## About SURF1

Surfeit locus protein 1 (SURF1) is a protein that in humans is encoded by the SURF1 gene. This gene encodes a protein localized to the inner mitochondrial membrane and thought to be involved in the biogenesis of the cytochrome c oxidase complex. The protein is a member of the SURF1 family, which includes the related yeast protein SHY1 and rickettsial protein RP733. The gene is located in the surfeit gene cluster, a group of very tightly linked genes that do not share sequence similarity, where it shares a bidirectional promoter with SURF2 on the opposite strand. Defects in this gene are a cause of Leigh syndrome, a severe neurological disorder that is commonly associated with systemic cytochrome c oxidase deficiency.

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## Overview

| | |
|---|---|
| Product Name | Anti-SURF1 Antibody Picoband® |
| Reactive Species | Human, Monkey, Mouse, Rat |
| Description | Boster Bio Anti-SURF1 Antibody Picoband® catalog # A03678-2. Tested in ELISA, Flow Cytometry, IF, ICC, WB applications. This antibody reacts with Human, Monkey, Mouse, 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 | ELISA, Flow Cytometry, IF, ICC, WB |
| Clonality | Polyclonal |
| Formulation | Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4. |
| 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 | Q15526 |

## Technical Details

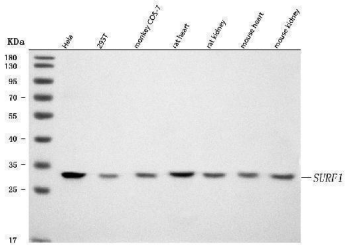
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| Immunogen | E.coli-derived human SURF1 recombinant protein (Position: S27-R295). |
| Recommended Detection Systems | Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western |

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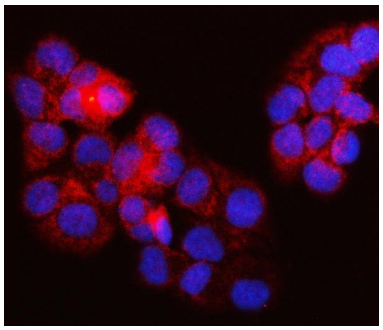
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| | blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for ICC. |
| Cross Reactivity | No cross-reactivity with other proteins. |
| Isotype | Rabbit IgG |
| Form | Lyophilized |
| Concentration | Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml. |
| Purification | Immunogen affinity purified. |
| Suggested Dilutions | Western blot, 0.25-0.5 ug/ml, Human, Mouse, Rat<br>Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human<br>Flow Cytometry (Fixed), 1-3 ug/1x$10^6$ cells, Human<br>ELISA, 0.1-0.5 ug/ml, -<br><br>Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells. |

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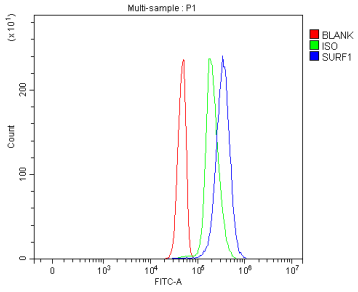
# Anti-SURF1 Antibody Picoband® (A03678-2) Images




Western blot analysis of SURF1 using anti-SURF1 antibody (A03678-2). 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 Hela whole cell lysates, Lane 2: human 293T whole cell lysates, Lane 3: monkey COS-7 whole cell lysates, Lane 4: rat heart tissue lysates, Lane 5: rat kidney tissue lysates, Lane 6: mouse heart tissue lysates, Lane 7: mouse kidney 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-SURF1 antigen affinity purified polyclonal antibody (Catalog # A03678-2) 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 SURF1 at approximately 33 kDa. The expected band size for SURF1 is at 33 kDa.



IF analysis of SURF1 using anti-SURF1 antibody (A03678-2). SURF1 was detected in an immunocytochemical section of T47D 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-SURF1 Antibody (A03678-2) 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.




Flow Cytometry analysis of Jurkat cells using anti-SURF1 antibody (A03678-2). Overlay histogram showing Jurkat cells stained with A03678-2 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-SURF1 Antibody (A03678-2, 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 without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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