BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

# Anti-SCD Antibody Picoband®

**Catalog Number:** A00588-2

## About SCD

This gene encodes an enzyme involved in fatty acid biosynthesis, primarily the synthesis of oleic acid. The protein belongs to the fatty acid desaturase family and is an integral membrane protein located in the endoplasmic reticulum. Transcripts of approximately 3.9 and 5.2 kb, differing only by alternative polyadenlyation signals, have been detected. A gene encoding a similar enzyme is located on chromosome 4 and a pseudogene of this gene is located on chromosome 17.

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## Overview

| | |
|---|---|
| Product Name | Anti-SCD Antibody Picoband® |
| Reactive Species | Human |
| Description | Boster Bio Anti-SCD Antibody Picoband® catalog # A00588-2. Tested in WB,ICC/IF,IP,FCM,ELISA 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 | ELISA, Flow Cytometry, IP, 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 | O00767 |

## Technical Details

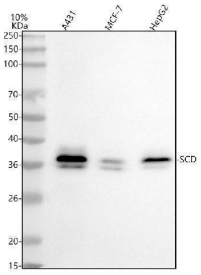
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|---|---|
| Immunogen | E.coli-derived human SCD recombinant protein (Position: R26-S358). |
| Recommended Detection Systems | Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for ICC. |

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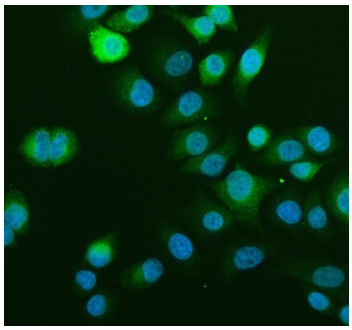
| | |
|---|---|
| Form | Lyophilized |
| Concentration | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml. |
| Purification | Immunogen affinity purified. |
| Suggested Dilutions | Western blot, 0.25-0.5 ug/ml, Human<br>Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human<br>Immunoprecipitation, 0.5-2 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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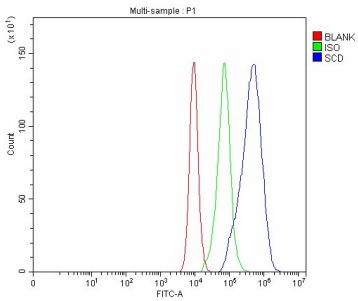
# Anti-SCD Antibody Picoband® (A00588-2) Images




Western blot analysis of SCD using anti-SCD antibody (A00588-2). 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 A431 whole cell lysates, Lane 2: human MCF-7 whole cell lysates, Lane 3: human HepG2 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-SCD antigen affinity purified polyclonal antibody (Catalog # A00588-2) 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 SCD at approximately 37 kDa. The expected band size for SCD is at 41 kDa.



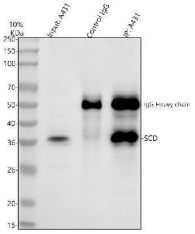
IF analysis of SCD using anti-SCD antibody (A00588-2). SCD was detected in an immunocytochemical section of A549 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-SCD Antibody (A00588-2) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) 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 Caco-2 cells using anti-SCD antibody (A00588-2). Overlay histogram showing Caco-2 cells stained with A00588-2 (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-SCD Antibody (A00588-2, 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.

Immunoprecipitating SCD in A431 whole cell lysate.Western blot analysis of SCD using anti-SCD antibody

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(A00588-2).Lane 1: A431 whole cell lysates (30ug)Lane 2: Rabbit control IgG instead of anti-SCD antibody in A431 whole cell lysate.Lane 3: anti-SCD antibody (2ug) + A431 whole cell lysate (500ug)After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-SCD antigen affinity purified polyclonal antibody (A00588-2) at a dilution of 0.5 ug/mL and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1196-200). A specific band was detected for SCD at approximately 37 kDa. The expected band size for SCD is at 41 kDa.

## Anti-SCD Antibody

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