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Anti-Adenylosuccinate Lyase Picoband Antibody

Catalog # ABO12877

Specification

Anti-Adenylosuccinate Lyase Picoband Antibody - Product Information

Application	**WB, IHC-P**
Primary Accession	P04424
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Adenylosuccinate Lyase detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Adenylosuccinate Lyase Picoband Antibody - Additional Information

Gene ID 435

Other Names
Argininosuccinate lyase, ASAL, 4.3.2.1, Arginosuccinase, ASL

Calculated MW
51658 MW KDa

Application Details
Western blot, 0.1-0.5 µg/ml
 Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence of human Adenylosuccinate Lyase (YTHLQRAQPIRWSHWILSHAVALTRDSERLLEVRKRIN).

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins.

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time. Avoid repeated freezing and**

thawing.

Anti-Adenylosuccinate Lyase Picoband Antibody - Protein Information

Name ASL

Function
Catalyzes the reversible cleavage of L-argininosuccinate to fumarate and L-arginine, an intermediate step reaction in the urea cycle mostly providing for hepatic nitrogen detoxification into excretable urea as well as de novo L-arginine synthesis in nonhepatic tissues (PubMed:11747432, PubMed:11747433, PubMed:22081021, PubMed:2263616, PubMed:9045711). Essential regulator of intracellular and extracellular L-arginine pools. As part of citrulline-nitric oxide cycle, forms tissue-specific multiprotein complexes with argininosuccinate synthase ASS1, transport protein SLC7A1 and nitric oxide synthase NOS1, NOS2 or NOS3, allowing for cell-autonomous L-arginine synthesis while channeling extracellular L-arginine to nitric oxide synthesis pathway (PubMed:22081021).

Anti-Adenylosuccinate Lyase Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Adenylosuccinate Lyase Picoband Antibody - Images

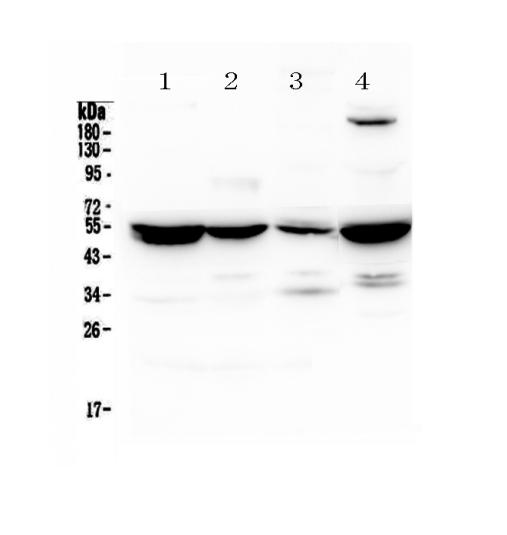

Figure 1. Western blot analysis of Adenylosuccinate Lyase using anti-Adenylosuccinate Lyase antibody (ABO12877). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat liver tissue lysates,Lane 2: rat kidney tissue lysates,Lane 3: rat lung tissue lysates,Lane 4: mouse liver tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-Adenylosuccinate Lyase antigen affinity purified polyclonal antibody (Catalog # ABO12877) at 0.5 ug/mL overnight at 4℃, 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 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for Adenylosuccinate Lyase at approximately 52KD. The expected band size for Adenylosuccinate Lyase is at 52KD.

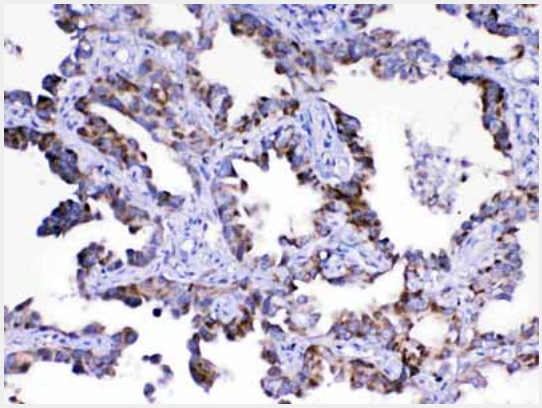

Figure 2. IHC analysis of Adenylosuccinate Lyase using anti-Adenylosuccinate Lyase antibody (ABO12877).Adenylosuccinate Lyase was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Adenylosuccinate Lyase Antibody (ABO12877) overnight at 4℃. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37℃. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

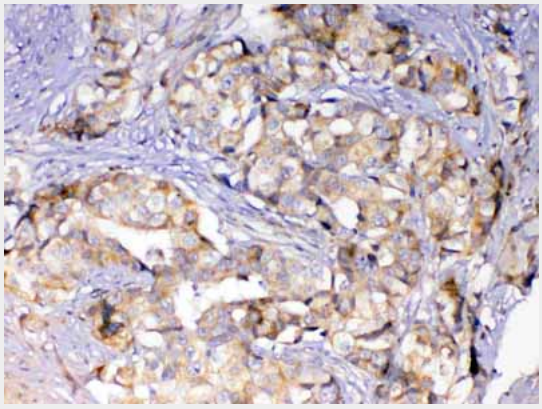

Figure 3. IHC analysis of Adenylosuccinate Lyase using anti-Adenylosuccinate Lyase antibody (ABO12877).Adenylosuccinate Lyase was detected in paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Adenylosuccinate Lyase Antibody (ABO12877) overnight at 4℃. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37℃. The tissue section was developed using

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Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

Anti-Adenylosuccinate Lyase Picoband Antibody - Background

ASL (argininosuccinatelyase, also known as argininosuccinase) is an enzyme that catalyzes the reversible breakdown of argininosuccinate (ASA) producing the amino acid arginine and dicarboxylic acid fumarate. Located in liver cytosol, ASL is the fourth enzyme of the urea cycle and involved in the biosynthesis of arginine in all species and the production of urea in ureotelic species. Mutations in ASL, resulting low activity of the enzyme, increase levels of urea in the body and result in various side effects. The ASL gene is located on chromosome 7 between the centromere (junction of the long and short arm) and the long (q) arm at position 11.2, from base pair 64,984,963 to base pair 65,002,090.