

# **Argininosuccinate Lyase Polyclonal Antibody**

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP54872

## **Specification**

## **Argininosuccinate Lyase Polyclonal Antibody - Product Information**

Application WB, IHC-P, IHC-F, IF, ICC, E

Primary Accession
Reactivity
Rost
Clonality
Polyclonal
Reactivity
Rat, Pig, Dog
Rabbit
Polyclonal

Calculated MW 52 KDa Physical State Liquid

Immunogen KLH conjugated synthetic peptide derived

laG

from human ASL 301-400/464

Isotype

Purity
affinity purified by Protein A

**Epitope Specificity** 

Buffer 0.01M TBS (pH7.4) with 1% BSA, 0.02%

Proclin300 and 50% Glycerol.

SUBCELLULAR LOCATION Acetylation modifies enzyme activity in

response to alterations of extracellular nutrient availability. Acetylation increased

with trichostin A (TSA) or with

nicotinamide (NAM). Glucose increases acetylation by about a factor of 3 with decreasing enzyme activity. Acetylation on Lys-288 is decreased on the addition of extra amino acids resulting in activation of

enzyme activity.

SIMILARITY Belongs to the lyase 1 family.

DISEASE Argininosuccinate lyase subfamily.

Defects in ASL are the cause of arginosuccinicaciduria (ARGINSA)

[MIM:207900]. Arginosuccinicaciduria is an autosomal recessive disorder of the urea cycle. The disease is characterized by mental and physical retardation, liver enlargement, skin lesions, dry and brittle

hair showing trichorrhexis nodosa microscopically and fluorescing red,

convulsions, and episodic

unconsciousness.

Important Note This product as supplied is intended for

research use only, not for use in human, therapeutic or diagnostic applications.

**Background Descriptions** 

This gene encodes a member of the lyase 1 family. The encoded protein forms a cytosolic homotetramer and primarily catalyzes the reversible hydrolytic cleavage of argininosuccinate into



arginine and fumarate, an essential step in the liver in detoxifying ammonia via the urea cycle. Mutations in this gene result in the autosomal recessive disorder argininosuccinic aciduria, or argininosuccinic acid lyase deficiency. A nontranscribed pseudogene is also located on the long arm of chromosome 22. Alternatively spliced transcript variants encoding different isoforms have been described. [provided by RefSeq, Jul 2008]

# **Argininosuccinate Lyase Polyclonal Antibody - Additional Information**

#### Gene ID 435

#### **Other Names**

Argininosuccinate lyase, ASAL, 4.3.2.1, Arginosuccinase, ASL

#### **Dilution**

```
<span class ="dilution_WB">WB~~1:1000</span><br \><span class
="dilution_IHC-P">IHC-P~~N/A</span><br \><span class
="dilution_IHC-F">IHC-F~~N/A</span><br \><span class
="dilution_IF">IF~~1:50~200</span><br \><span class ="dilution_ICC">ICC~~N/A</span><br \><span class ="dilution_E">E~~N/A</span>
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### Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

## **Argininosuccinate Lyase Polyclonal Antibody - Protein Information**

## Name ASL

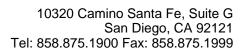
#### **Function**

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:<a href="http://www.uniprot.org/citations/11747432" target="\_blank">11747432</a>, PubMed:<a href="http://www.uniprot.org/citations/11747433" target="\_blank">11747433</a>, PubMed:<a href="http://www.uniprot.org/citations/22081021" target="\_blank">22081021</a>, PubMed:<a href="http://www.uniprot.org/citations/2263616" target="\_blank">2263616</a>, PubMed:<a href="http://www.uniprot.org/citations/9045711" target="\_blank">9045711</a>, 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:<a href="http://www.uniprot.org/citations/22081021" target="\_blank">22081021</a>/a>).

### **Argininosuccinate Lyase Polyclonal Antibody - Protocols**

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry





- <u>Immunofluorescence</u>
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

**Argininosuccinate Lyase Polyclonal Antibody - Images**