

**Goat Anti-Argininosuccinate synthetase 1 Antibody**  
Peptide-affinity purified goat antibody  
Catalog # AF1097a

**Specification**

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**Goat Anti-Argininosuccinate synthetase 1 Antibody - Product Information**

Application	WB, IHC, IF, FC
Primary Accession	<a href="#">P00966</a>
Other Accession	<a href="#">NP_446464</a> , <a href="#">445</a> , <a href="#">11898 (mouse)</a> , <a href="#">25698 (rat)</a>
Reactivity	Human, Bovine
Predicted	Rat, Dog
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	46530

**Goat Anti-Argininosuccinate synthetase 1 Antibody - Additional Information**

**Gene ID** 445

**Other Names**

Argininosuccinate synthase, 6.3.4.5, Citrulline--aspartate ligase, ASS1, ASS

**Format**

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Goat Anti-Argininosuccinate synthetase 1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Goat Anti-Argininosuccinate synthetase 1 Antibody - Protein Information**

**Name** ASS1 ([HGNC:758](#))

**Function**

One of the enzymes of the urea cycle, the metabolic pathway transforming neurotoxic ammonia produced by protein catabolism into innocuous urea in the liver of ureotelic animals. Catalyzes the formation of argininosuccinate from aspartate, citrulline and ATP and together with ASL it is responsible for the biosynthesis of arginine in most body tissues.

**Cellular Location**

Cytoplasm, cytosol

#### Tissue Location

Expressed in adult liver.

### Goat Anti-Argininosuccinate synthetase 1 Antibody - Protocols

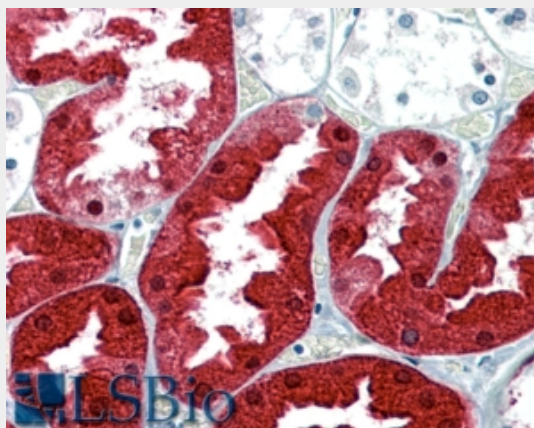
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

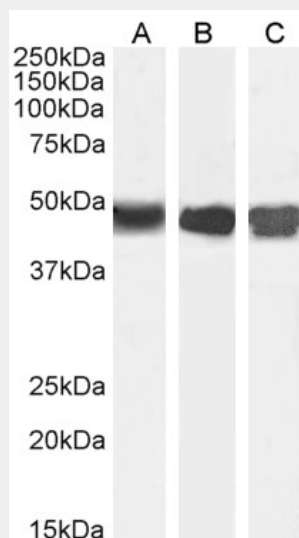
### Goat Anti-Argininosuccinate synthetase 1 Antibody - Images



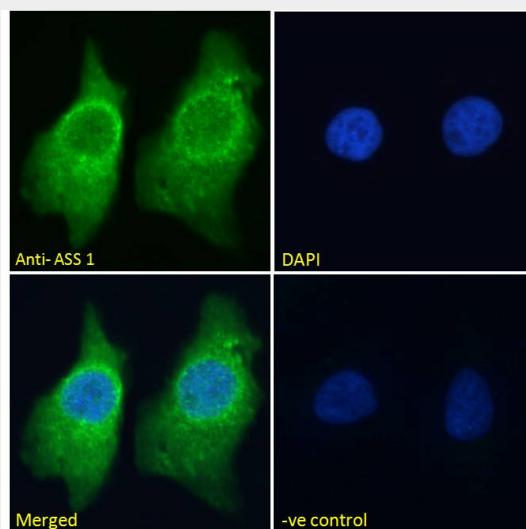
AF1097a (0.3  $\mu\text{g/ml}$ ) staining of A431 (A) and (1 $\mu\text{g/ml}$ ) NIH3T3(B) cell lysate (35  $\mu\text{g}$  protein in RIPA buffer). Detected by chemiluminescence.



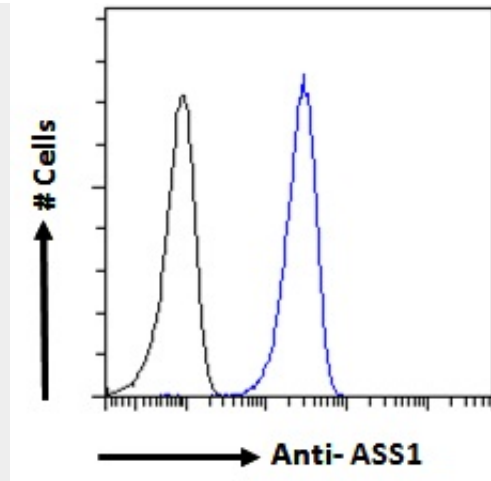
AF1097a (2.5 µg/ml) staining of paraffin embedded Human Kidney. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.



AF1097a (0.01 µg/ml) staining of Human Kidney (A) Mouse Liver (B) and (0.03ug/ml) Rat Kidney (C) lysate (35 µg protein in RIPA buffer). Detected by chemiluminescence.



AF1097a Immunofluorescence analysis of paraformaldehyde fixed HeLa cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml), showing cytoplasmic staining. The nuclear stain is DAPI (b)



AF1097a Flow cytometric analysis of paraformaldehyde fixed A431 cells (blue line), permeabilized with 0.5% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (1ug/ml). IgG control: Unimmunized goat IgG (black line) fol

### Goat Anti-Argininosuccinate synthetase 1 Antibody - Background

The protein encoded by this gene catalyzes the penultimate step of the arginine biosynthetic pathway. There are approximately 10 to 14 copies of this gene including the pseudogenes scattered across the human genome, among which the one located on chromosome 9 appears to be the only functional gene for argininosuccinate synthetase. Mutations in the chromosome 9 copy of ASS cause citrullinemia. Two transcript variants encoding the same protein have been found for this gene.

### Goat Anti-Argininosuccinate synthetase 1 Antibody - References

- Polymorphic variants of genes related to arginine metabolism and the risk of orofacial clefts. Hozyasz KK, et al. Arch Oral Biol, 2010 Aug 23. PMID 20739017.
- Variation at the NFATC2 Locus Increases the Risk of Thiazolinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.
- Reduced argininosuccinate synthetase is a predictive biomarker for the development of pulmonary metastasis in patients with osteosarcoma. Kobayashi E, et al. Mol Cancer Ther, 2010 Mar. PMID 20159990.
- Resistance to arginine deiminase treatment in melanoma cells is associated with induced argininosuccinate synthetase expression involving c-Myc/HIF-1alpha/Sp4. Tsai WB, et al. Mol Cancer Ther, 2009 Dec. PMID 19934275.
- Gene-centric association signals for lipids and apolipoproteins identified via the HumanCVD BeadChip. Talmud PJ, et al. Am J Hum Genet, 2009 Nov. PMID 19913121.