10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

# ASS Antibody (Center)
**Purified Rabbit Polyclonal Antibody (Pab)**
**Catalog # AP6829c**

## Specification

### ASS Antibody (Center) - Product Information

| | |
|---|---|
| Application | **IF, WB, IHC-P, IHC-P-Leica, FC,E** |
| Primary Accession | P00966 |
| Other Accession | P09034, P16460 |
| Reactivity | **Human, Mouse, Rat** |
| Predicted | **Mouse, Rat** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Isotype | **Rabbit IgG** |
| Antigen Region | **192-221** |

### ASS Antibody (Center) - Additional Information

**Gene ID** 445

**Other Names**
Argininosuccinate synthase, Citrulline--aspartate ligase, ASS1, ASS

**Target/Specificity**
This ASS antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 192-221 amino acids from the Central region of human ASS.

**Dilution**
IF~~1:25
WB~~1:2000
IHC-P~~1:25
IHC-P-Leica~~1:500
FC~~1:25

**Format**
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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

**Precautions**
ASS Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

### ASS Antibody (Center) - Protein Information

**Name** ASS1 (HGNC:758)

**Function** One of the enzymes of the urea cycle, the metabolic pathway transforming neurotoxic amonia produced by protein catabolism into inocuous urea in the liver of ureotelic animals. Catalyzes the formation of arginosuccinate 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

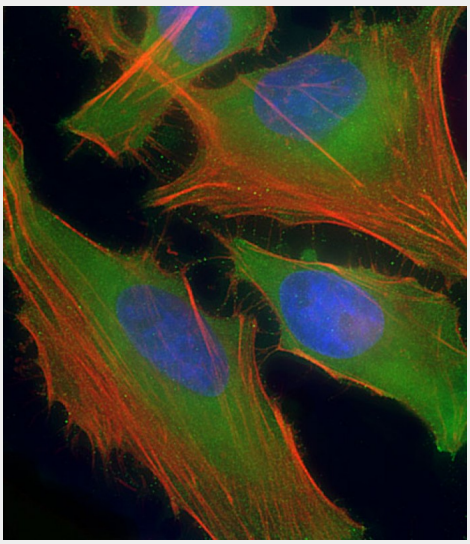
**Tissue Location**
Expressed in adult liver.

## ASS Antibody (Center) - 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

## ASS Antibody (Center) - Images



Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (human cervical epithelial adenocarcinoma cell line) cells labeling ASS with AP6829c at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-rabbit IgG (NK179883) secondary antibody at 1/200 dilution (green). Immunofluorescence image showing cytoplasm and nucleus staining on HeLa cell line. Cytoplasmic actin is detected with Dylight® 554 Phalloidin (PD18466410) at 1/100 dilution (red).The nuclear counter stain is DAPI (blue).

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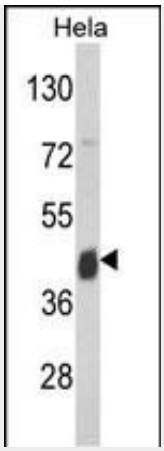
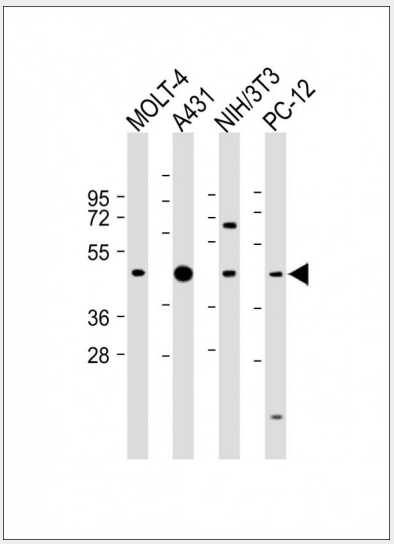
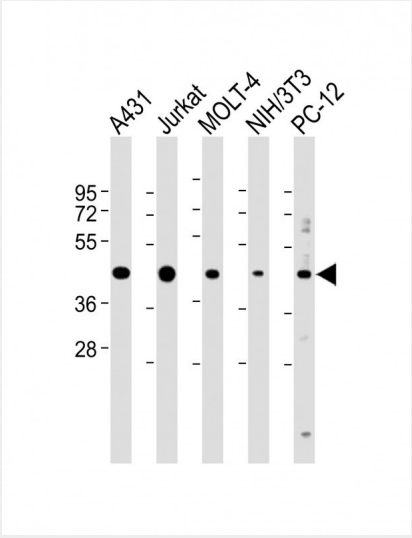



Western blot analysis of ASS Antibody (Center) (Cat. #AP6829c) in Hela cell line lysates (35ug/lane). ASS (arrow) was detected using the purified Pab.




All lanes : Anti-ASS Antibody (Center) at 1:2000 dilution Lane 1: MOLT-4 whole cell lysate Lane 2: A431 whole cell lysate Lane 3: NIH/3T3 whole cell lysate Lane 4: PC-12 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 47 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



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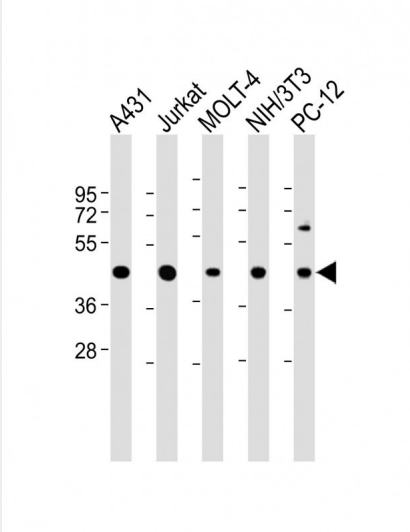
All lanes : Anti-ASS Antibody (Center) at 1:2000 dilution Lane 1: A431 whole cell lysate Lane 2: Jurkat whole cell lysate Lane 3: MOLT-4 whole cell lysate Lane 4: NIH/3T3 whole cell lysate Lane 5: PC-12 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 47 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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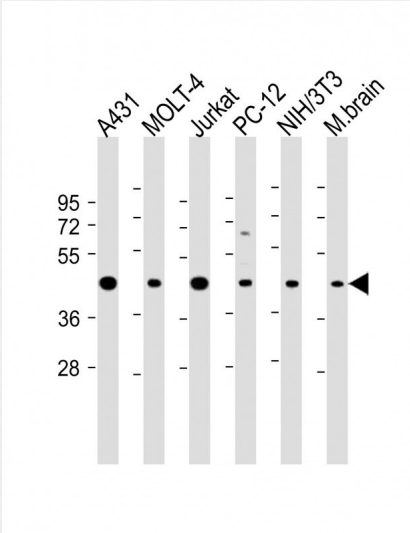
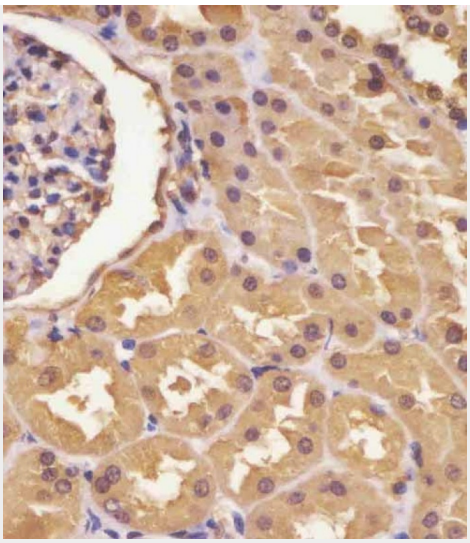
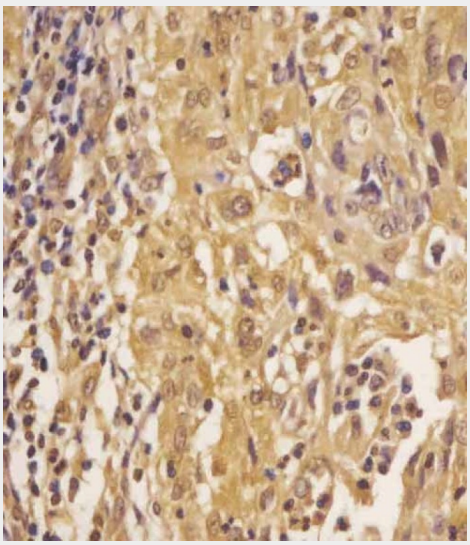



All lanes : Anti-ASS Antibody (Center) at 1:2000 dilution Lane 1: A431 whole cell lysate Lane 2: MOLT-4 whole cell lysate Lane 3: Jurkat whole cell lysate Lane 4: PC-12 whole cell lysate Lane 5: NIH/3T3 whole cell lysate Lane 6: Mouse brain lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 47 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



AP6829c staining ASS in human kidney tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



AP6829c staining ASS in human cervical carcinoma sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.

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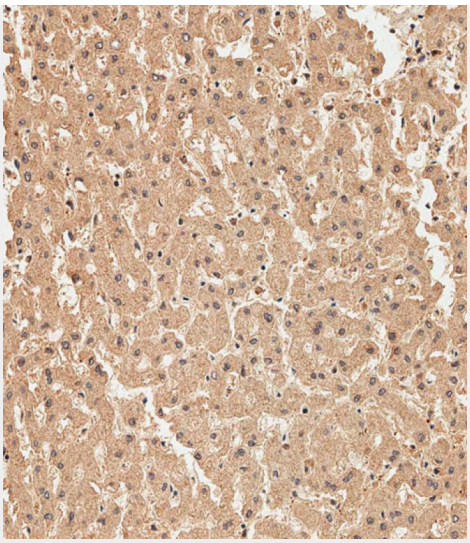
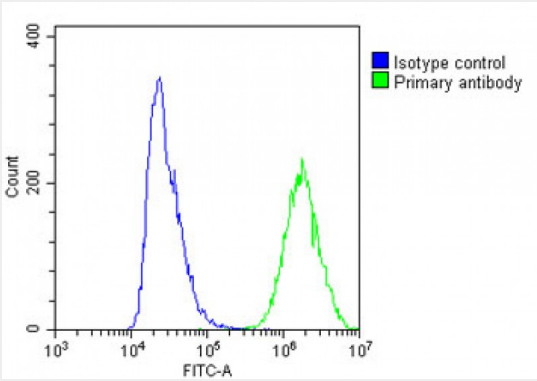


Immunohistochemical analysis of paraffin-embedded human liver tissue using AP6829c performed on the Leica® BOND RXm. Samples were incubated with primary antibody(1/500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.




Overlay histogram showing A431 cells stained with AP6829c(green line). The cells were fixed with 2% paraformaldehyde and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed at 1/200 dilution for 40 min at Room temperature. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.

**ASS Antibody (Center) - Background**

ASS 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.

**ASS Antibody (Center) - References**

Engel,K., et.al., Hum. Mutat. 30 (3), 300-307 (2009)