

# Anti-ASS1 Antibody [11F1-RA]

HA601101



<b>Product Type:</b>	Recombinant Mouse monoclonal IgG2b, primary antibodies
<b>Species reactivity:</b>	Human, Mouse, Rat
<b>Applications:</b>	WB, IHC-P, IF-Cell
<b>Molecular Wt:</b>	Predicted band size: 47 kDa
<b>Clone number:</b>	11F1-RA

**Description:** Argininosuccinate synthetase is an enzyme that in humans is encoded by the ASS1 gene. 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. Two transcript variants encoding the same protein have been found for this gene. Mutations in the chromosome 9 copy of ASS cause citrullinemia. 40% to 90%[8] of bladder cancers are deficient in argininosuccinate synthetase.

**Immunogen:** Recombinant protein within Human ASS1 aa 1-412 / 412.

**Positive control:** HepG2 cell lysate, Human liver tissue lysate, Human kidney tissue lysate, Mouse liver tissue lysate, Mouse kidney tissue lysate, Rat liver tissue lysate, Rat kidney tissue lysate, rat kidney tissue, human kidney tissue, MCF-7.

**Subcellular location:** Cytoplasm

**Database links:** SwissProt: P00966 Human | P16460 Mouse | P09034 Rat

**Recommended Dilutions:**

<b>WB</b>	1:5,000-1:20,000
<b>IHC-P</b>	1:1,000
<b>IF-Cell</b>	1:200

**Storage Buffer:** PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

**Purity:** Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

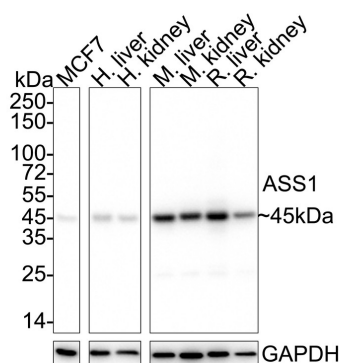
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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

## Images

**Fig1:** Western blot analysis of ASS1 on different lysates with Mouse anti-ASS1 antibody (HA601101) at 1/5,000 dilution.



Lane 1: HepG2 cell lysate (15 µg/Lane)  
 Lane 2: Human liver tissue lysate (30 µg/Lane)  
 Lane 3: Human kidney tissue lysate (30 µg/Lane)  
 Lane 4: Mouse liver tissue lysate (30 µg/Lane)  
 Lane 5: Mouse kidney tissue lysate (30 µg/Lane)  
 Lane 6: Rat liver tissue lysate (30 µg/Lane)  
 Lane 7: Rat kidney tissue lysate (30 µg/Lane)

Predicted band size: 47 kDa

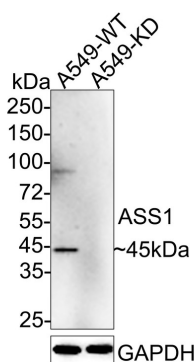
Observed band size: 45 kDa

Exposure time: 6 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA601101) at 1/5,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1/50,000 dilution was used for 1 hour at room temperature.

**Fig2:** Western blot analysis of ASS1 on different lysates with Mouse anti-ASS1 antibody (HA601101) at 1/2,000 dilution.



Lane 1: A549-WT cell lysate  
 Lane 2: A549-KD ASS1 cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 47 kDa

Observed band size: 45 kDa

Exposure time: 3 minutes; ECL: K1802;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA601101) at 1/2,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1/50,000 dilution was used for 1 hour at room temperature.

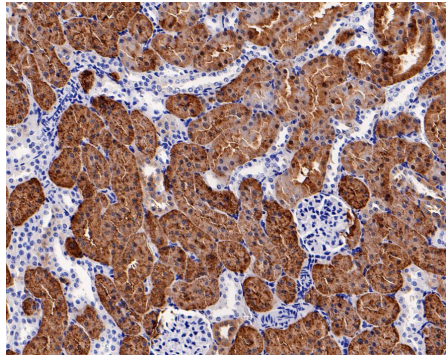
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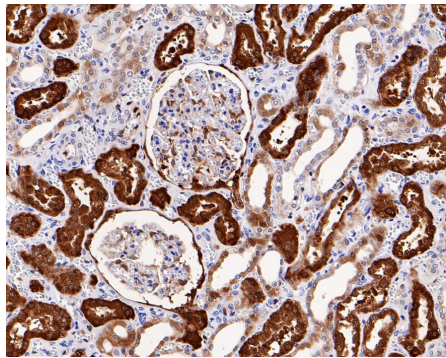
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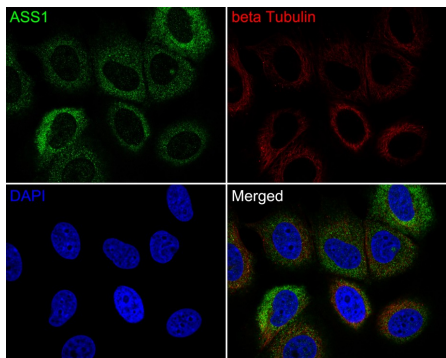
**Fig3:** Immunohistochemical analysis of paraffin-embedded rat kidney tissue with Mouse anti-ASS1 antibody (HA601101) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (HA601101) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.



**Fig4:** Immunohistochemical analysis of paraffin-embedded human kidney tissue with Mouse anti-ASS1 antibody (HA601101) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (HA601101) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.



**Fig5:** Immunocytochemistry analysis of MCF-7 cells labeling ASS1 with Mouse anti-ASS1 antibody (HA601101) at 1/200 dilution.

Cells were fixed in 4% paraformaldehyde for 30 minutes, permeabilized with 0.05% Triton X-100 in PBS for 20 minutes, and then blocked with 2% negative goat serum for 30 minutes at room temperature. Cells were then incubated with Mouse anti-ASS1 antibody (HA601101) at 1/200 dilution in 2% negative goat serum overnight at 4 °C. Goat Anti-Mouse IgG H&L (iFluor™ 488, HA1125) was used as the secondary antibody at 1/1,000 dilution. Nuclear DNA was labelled in blue with DAPI.

beta Tubulin (ET1602-4, red) was stained at 1/100 dilution overnight at +4 °C. Goat Anti-Rabbit IgG H&L (iFluor™ 594, HA1122) were used as the secondary antibody at 1/1,000 dilution.

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**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

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### Background References

1. Carritt B, Goldfarb PS, Hooper ML, Slack C (Jun 1977). "Chromosome assignment of a human gene for argininosuccinate synthetase expression in Chinese hamsterxhuman somatic cell hybrids". Exp Cell Res. 106 (1): 71-8.
2. Beaudet AL, O'Brien WE, Bock HG, Freytag SO, Su TS (Mar 1986). "The human argininosuccinate synthetase locus and citrullinemia". Adv Hum Genet. 15: 161-96, 291-2.

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