

Anti-CASK Antibody [A1C5]

EM1902-09



Product Type:	Mouse monoclonal IgG2a, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P
Molecular Wt:	Predicted band size: 105 kDa
Clone number:	A1C5

Description: Peripheral plasma membrane protein CASK is a protein that in humans is encoded by the CASK gene. This gene is also known by several other names: CMG 2 (CAMGUK protein 2), calcium/calmodulin-dependent serine protein kinase 3 and membrane-associated guanylate kinase 2. Multidomain scaffolding protein with a role in synaptic transmembrane protein anchoring and ion channel trafficking. Contributes to neural development and regulation of gene expression via interaction with the transcription factor TBR1. Binds to cell-surface proteins, including amyloid precursor protein, neuroligins and syndecans. May mediate a link between the extracellular matrix and the actin cytoskeleton via its interaction with syndecan and with the actin/spectrin-binding protein 4.1.

Immunogen: Recombinant protein within Human CASK aa 311-513 / 926.

Positive control: SiHa cell lysate, A549 cell lysate, U-87 MG cell lysate, Neuro-2a cell lysate, human brain tissue lysate, mouse brain tissue lysate, rat brain tissue lysate, human prostate cancer tissue, mouse liver tissue, rat liver tissue.

Subcellular location: Nucleus, Cytoplasm, Cell membrane.

Database links: SwissProt: O14936 Human | O70589 Mouse | Q62915 Rat

Recommended Dilutions:

WB	1:2,000
IHC-P	1:2,000

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 50% 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

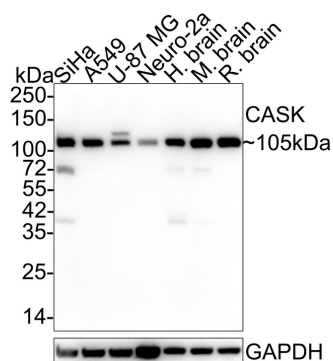
Technical:0086-571-89986345

Service mail:support@huabio.cn

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Images

Fig1: Western blot analysis of CASK on different lysates with Mouse anti-CASK antibody (EM1902-09) at 1/2,000 dilution.



Lane 1: SiHa cell lysate
 Lane 2: A549 cell lysate
 Lane 3: U-87 MG cell lysate
 Lane 4: Neuro-2a cell lysate
 Lane 5: Human brain tissue lysate
 Lane 6: Mouse brain tissue lysate
 Lane 7: Rat brain tissue lysate

Lysates/proteins at 30 µg/Lane.

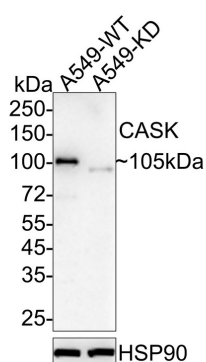
Predicted band size: 105 kDa
 Observed band size: 105 kDa

Exposure time: 1 minute;

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 (EM1902-09) 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.

Fig2: Western blot analysis of CASK on different lysates with Mouse anti-CASK antibody (EM1902-09) at 1/2,000 dilution.



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

Lysates/proteins at 10 µg/Lane.

Predicted band size: 105 kDa
 Observed band size: 105 kDa

Exposure time: 3 minutes; 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 (EM1902-09) 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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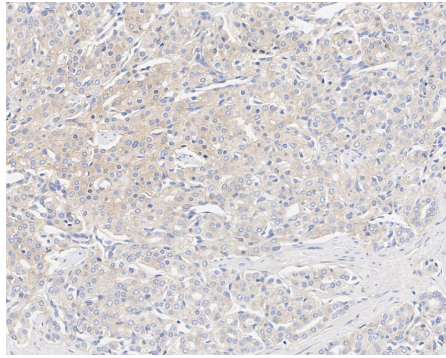


Fig3: Immunohistochemical analysis of paraffin-embedded human prostate cancer tissue with Mouse anti-CASK antibody (EM1902-09) at 1/2,000 dilution.

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 ddH₂O and PBS, and then probed with the primary antibody (EM1902-09) at 1/2,000 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.

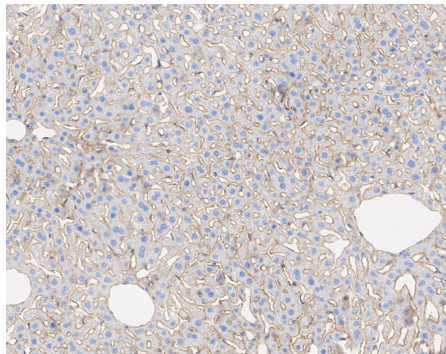


Fig4: Immunohistochemical analysis of paraffin-embedded mouse liver tissue with Mouse anti-CASK antibody (EM1902-09) at 1/2,000 dilution.

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 ddH₂O and PBS, and then probed with the primary antibody (EM1902-09) at 1/2,000 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.

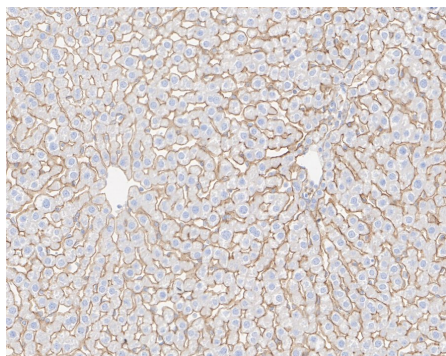


Fig5: Immunohistochemical analysis of paraffin-embedded rat liver tissue with Mouse anti-CASK antibody (EM1902-09) at 1/2,000 dilution.

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 ddH₂O and PBS, and then probed with the primary antibody (EM1902-09) at 1/2,000 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.

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

Background References

1. Zhang K et al. CASK, APBA1, and STXBP1 collaborate during insulin secretion. *Mol Cell Endocrinol.* 2021 Jan
2. Qu J et al. CASK regulates Notch pathway and functions as a tumor promoter in pancreatic cancer. *Arch Biochem Biophys.* 2021 Apr

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