Anti-Protein CASP Antibody [A9F6]

HA601128

Product Type:	Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P, IF-Cell
Molecular Wt:	Predicted band size: 77 kDa
Clone number:	A9F6

Description: The human CUX1 gene is large, encompassing more than 440,000 base pairs with two alternative first exons and an additional 23 exons. The last exon has a weak polyadenylation site allowing RNA polymerase II often to continue transcribing until it reaches an additional 10 exons. Splicing of this longer transcript from exon 14 to exon 25 generates a mature mRNA that codes for a protein that was called CASP (Cut alternatively spliced product). CASP localizes to the Golgi and does not seem to impact at all on CUX1 function. However, because of the complex structure of the gene, most oligos in microarrays were derived from the most 3' exons that are unique to CASP. Thus, until the advent of RNA sequencing CUX1 expression data has been essentially limited to immunohistochemical analyses. Similarly, many guide RNAs in CRISPR-Cas screening studies target the CASP-specific exons and do not affect CUX1.

Immunogen: Recombinant protein within human Protein CASP aa 6-55.

Positive control: SH-SY5Y cell lysate, 293T cell lysate, SK-Br-3 cell lysate, HeLa cell lysate, NIH/3T3 cell lysate, PC-12 cell lysate, Mouse brain tissue lysate, human endometrium tissue, human kidney tissue, human small intestine tissue, rat brain tissue, HeLa, SH-SY5Y.

Subcellular location: Golgi apparatus membrane.

Database links: SwissProt: Q13948 Human | P39880 Human | P70403 Mouse | P53564 Mouse | P53565 Rat

Recommended Dilutions:

WB	1:50,000
IHC-P	1:200-1:1,000
IF-Cell	1:200-1:1,000

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

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

Purity: Protein A affinity purified.

Images

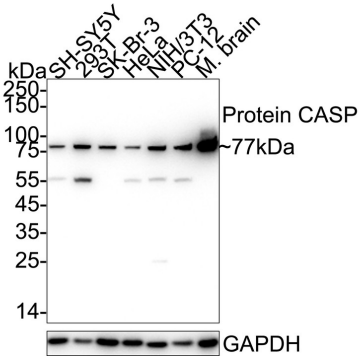

Fig1: Western blot analysis of Protein CASP on different lysates with Mouse anti-Protein CASP antibody (HA601128) at 1/50,000 dilution.

Lane 1: SH-SY5Y cell lysate
Lane 2: 293T cell lysate
Lane 3: SK-Br-3 cell lysate
Lane 4: HeLa cell lysate
Lane 5: NIH/3T3 cell lysate
Lane 6: PC-12 cell lysate
Lane 7: Mouse brain tissue lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 77 kDa
Observed band size: 77 kDa

Exposure time: 10 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 (HA601128) at 1/50,000 dilution was used in primary antibody dilution (K1803) at 4℃ overnight. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1/50,000 dilution was used for 1 hour at room temperature.

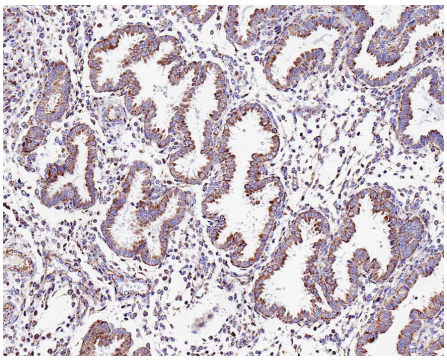

Fig2: Immunohistochemical analysis of paraffin-embedded human endometrium tissue with Mouse anti-Protein CASP antibody (HA601128) at 1ug/mL dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA601128) at 1ug/mL 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.

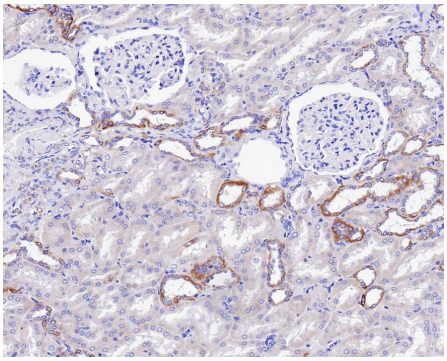

Fig3: Immunohistochemical analysis of paraffin-embedded human kidney tissue with Mouse anti-Protein CASP antibody (HA601128) at 1ug/mL dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA601128) at 1ug/mL 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.

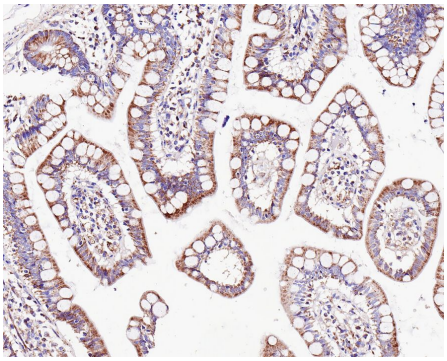

Fig4: Immunohistochemical analysis of paraffin-embedded human small intestine tissue with Mouse anti-Protein CASP antibody (HA601128) at 1ug/mL dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA601128) at 1ug/mL 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.

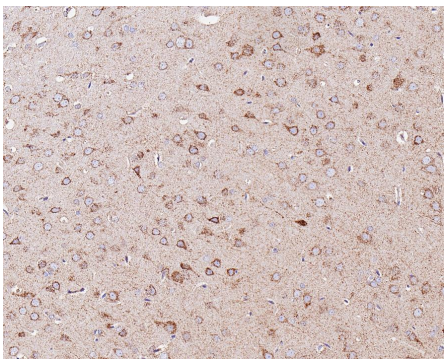

Fig5: Immunohistochemical analysis of paraffin-embedded rat brain tissue with Mouse anti-Protein CASP antibody (HA601128) at 1ug/mL dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA601128) at 1ug/mL 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.

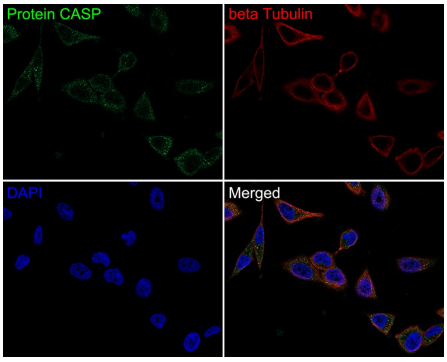

Fig6: Immunocytochemistry analysis of HeLa cells labeling Protein CASP with Mouse anti-Protein CASP antibody (HA601128) at 1ug/mL dilution.

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-Protein CASP antibody (HA601128) at 1ug/mL dilution in 2% negative goat serum overnight at 4 ℃. 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℃. Goat Anti-Rabbit IgG H&L (iFluor™ 594, HA1122) were used as the secondary antibody at 1/1,000 dilution.

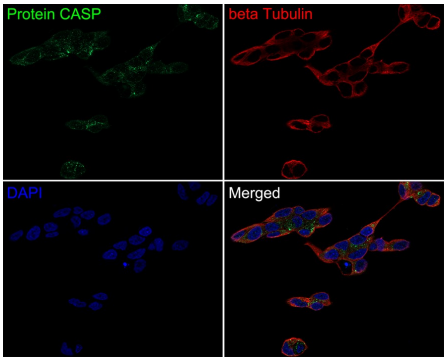

Fig7: Immunocytochemistry analysis of SH-SY5Y cells labeling Protein CASP with Mouse anti-Protein CASP antibody (HA601128) at 1ug/mL dilution.

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-Protein CASP antibody (HA601128) at 1ug/mL dilution in 2% negative goat serum overnight at 4 ℃. 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℃. Goat Anti-Rabbit IgG H&L (iFluor™ 594, HA1122) were used as the secondary antibody at 1/1,000 dilution.