Anti-Stathmin 1 Antibody [SS0453]

ET1609-20

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Tissue, IHC-P, FC, IP, IHC-Fr
Molecular Wt:	Predicted band size: 17 kDa
Clone number:	SS0453

Description: Op18 (for oncoprotein 18, also designated stathmin, prosolin or metablastin) is a conserved, tubulin-associated, intracellular phosphoprotein . Many different phosphorylated forms of Op18 are observed, and it is expressed as two different isoforms. Op18 is considered a critical regulator of microtubulin dynamics and is downregulated by p53. It serves as a transducing protein, via phophorylation, for a variety of cell signaling pathways and involved in both mitosis and differentiation. Op18 is present in many cancers, including breast carcinomas, and is highly expressed in acute leukemias of different subtypes.

Immunogen: Synthetic peptide within Human Stathmin 1 aa 100-149 / 149.

Positive control: Mouse brain tissue, Jurkat cell lysates, SH-SY5Y cell lysate, Mouse brain tissue lysate, Rat brain tissue lysate, mouse kidney tissue, rat brain tissue, rat kidney tissue, Hela.

Subcellular location: Cytoplasm, Cytoskeleton, Microtubule.

Database links: SwissProt: P16949 Human | P54227 Mouse | P13668 Rat

Recommended Dilutions:

WB	1:1,000
IF-Tissue	1:50-1:500
IHC-P	1:200-1:1,000
FC	1:50-1:100
IP	Use at an assay dependent concentration.
IHC-Fr	1:200

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

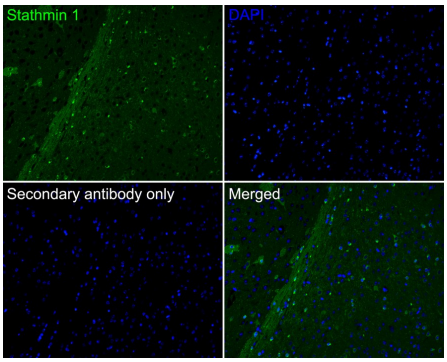

Fig1: Immunofluorescence analysis of paraffin-embedded mouse brain tissue labeling Stathmin 1 with Rabbit anti-Stathmin 1 antibody (ET1609-20) at 1/50 dilution.

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 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with the primary antibody (ET1609-20, green) at 1/50 dilution overnight at 4 ℃, washed with PBS.

Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. Nuclei were counterstained with DAPI (blue).

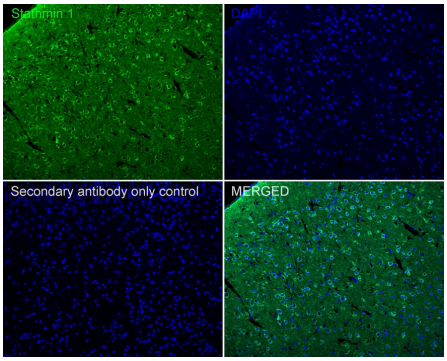

Fig2: Immunofluorescence analysis of frozen mouse brain tissue with Rabbit anti-Stathmin 1 antibody (ET1609-20) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for about 2 minutes in microwave oven. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with the primary antibody (ET1609-20, green) at 1/200 dilution overnight at 4 ℃, washed with PBS. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. Nuclei were counterstained with DAPI (blue).

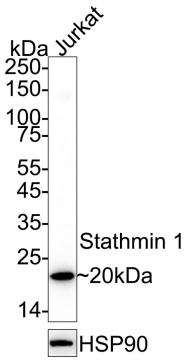

Fig3: Western blot analysis of Stathmin 1 on Jurkat cell lysates with Rabbit anti-Stathmin 1 antibody (ET1609-20) at 1/1,000 dilution.

Lysates/proteins at 20 µg/Lane.

Predicted band size: 17 kDa
Observed band size: 20 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 (ET1609-20) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

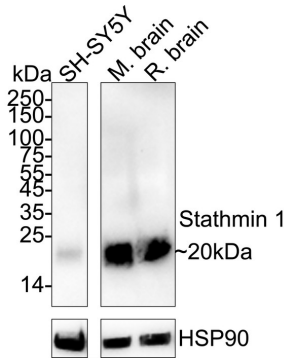

Fig4: Western blot analysis of Stathmin 1 on different lysates with Rabbit anti-Stathmin 1 antibody (ET1609-20) at 1/1,000 dilution.

Lane 1: SH-SY5Y cell lysate (20 µg/Lane)
Lane 2: Mouse brain tissue lysate (40 µg/Lane)
Lane 3: Rat brain tissue lysate (40 µg/Lane)

Predicted band size: 17 kDa
Observed band size: 20 kDa

Exposure time: 1 minute 33 seconds; 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 (ET1609-20) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

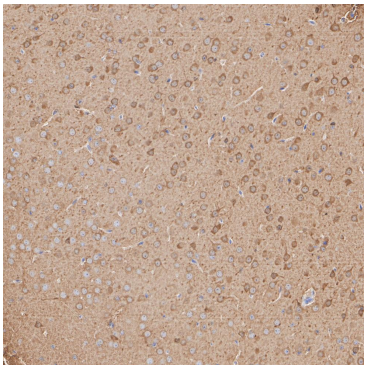

Fig5: Immunohistochemical analysis of paraffin-embedded mouse brain tissue with Rabbit anti-Stathmin 1 antibody (ET1609-20) at 1/1,000 dilution.

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_2O and PBS, and then probed with the primary antibody (ET1609-20) 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.

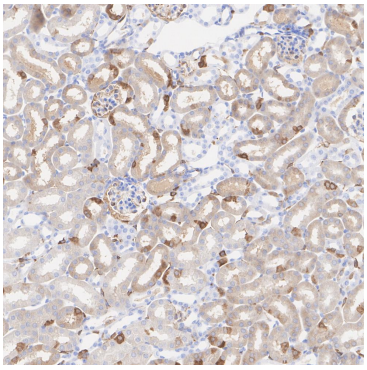

Fig6: Immunohistochemical analysis of paraffin-embedded mouse kidney tissue with Rabbit anti-Stathmin 1 antibody (ET1609-20) at 1/1,000 dilution.

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_2O and PBS, and then probed with the primary antibody (ET1609-20) 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.

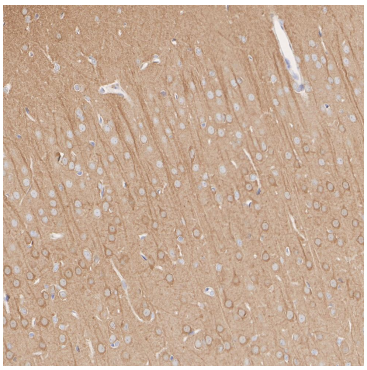

Fig7: Immunohistochemical analysis of paraffin-embedded rat brain tissue with Rabbit anti-Stathmin 1 antibody (ET1609-20) at 1/1,000 dilution.

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_2O and PBS, and then probed with the primary antibody (ET1609-20) 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.

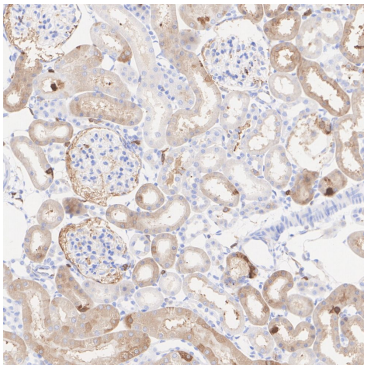

Fig8: Immunohistochemical analysis of paraffin-embedded rat kidney tissue with Rabbit anti-Stathmin 1 antibody (ET1609-20) at 1/1,000 dilution.

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_2O and PBS, and then probed with the primary antibody (ET1609-20) 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.

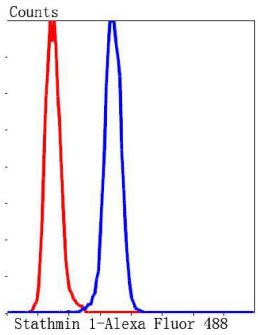

Fig9: Flow cytometric analysis of Hela cells with Stathmin 1 antibody at 1/50 dilution (blue) compared with an unlabelled control (cells without incubation with primary antibody; red). Alexa Fluor 488-conjugated goat anti rabbit IgG was used as the secondary antibody.

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

Background References

1. Liu F, et al. Expression and phosphorylation of stathmin correlate with cell migration in esophageal squamous cell carcinoma. Oncol Rep 29:419-24 (2013).
2. Maltman DJ, et al. Top-down label-free LC-MALDI analysis of the peptidome during neural progenitor cell differentiation reveals complexity in cytoskeletal protein dynamics and identifies progenitor cell markers. Proteomics 11:3992-4006 (2011).