Anti-USO1 Antibody [JE64-48]

HA721060

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Cell, IHC-P
Molecular Wt:	Predicted band size: 108 kDa
Clone number:	JE64-48

Description: General vesicular transport factor p115 is a protein that in humans is encoded by the USO1 gene. The protein encoded by this gene is a peripheral membrane protein which recycles between the cytosol and the Golgi apparatus during interphase. It is regulated by phosphorylation: dephosphorylated protein associates with the Golgi membrane and dissociates from the membrane upon phosphorylation. Ras-associated protein 1 recruits this protein to coat protein complex II (COPII) vesicles during budding from the endoplasmic reticulum (ER), where it interacts with a set of COPII vesicle-associated SNAREs to form a cis-SNARE complex that promotes targeting to the Golgi apparatus. Transport from the ER to the cis/medial Golgi compartments requires the action of this gene product, GOLGA2, and giantin in a sequential manner.

Immunogen: Synthetic peptide within human USO1 aa 1-50/962.

Positive control: Hela cell lysate, 293T cell lysate, HepG2 cell lysate, A431 cell lysate, NIH/3T3 cell lysates, PC-12 cell lysates, rat epididymis tissue, human testis tissue, mouse cerebellum tissue, SH-SY5Y.

Subcellular location: Cytosol, Golgi apparatus membrane.

Database links: SwissProt: O60763 Human | Q9Z1Z0 Mouse | P41542 Rat

Recommended Dilutions:

WB	1:1,000
IF-Cell	1:400
IHC-P	1:100

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℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

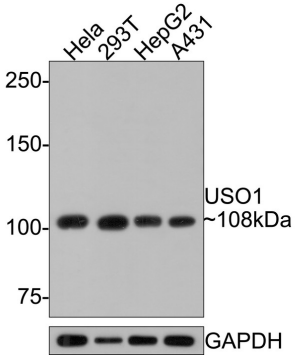

Fig1: Western blot analysis of USO1 on different lysates with Rabbit anti-USO1 antibody (HA721060) at 1/1,000 dilution.

Lane 1: Hela cell lysate
Lane 2: 293T cell lysate
Lane 3: HepG2 cell lysate
Lane 4: A431 cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 108 kDa
Observed band size: 108 kDa

Exposure time: 1 minute;

6% 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 (HA721060) at 1/1,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:300,000 dilution was used for 1 hour at room temperature.

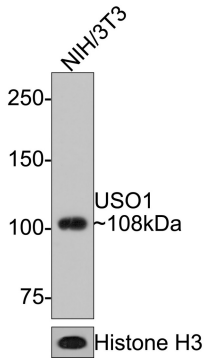

Fig2: Western blot analysis of USO1 on NIH/3T3 cell lysates with Rabbit anti-USO1 antibody (HA721060) at 1/1,000 dilution.

Lysates/proteins at 10 µg/Lane.

Predicted band size: 108 kDa
Observed band size: 108 kDa

Exposure time: 1 minute;

6% 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 (HA721060) at 1/1,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:300,000 dilution was used for 1 hour at room temperature.

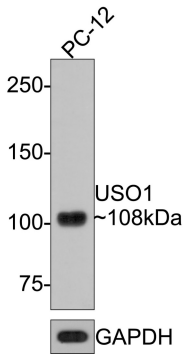

Fig3: Western blot analysis of USO1 on PC-12 cell lysates with Rabbit anti-USO1 antibody (HA721060) at 1/1,000 dilution.

Lysates/proteins at 10 µg/Lane.

Predicted band size: 108 kDa
Observed band size: 108 kDa

Exposure time: 1 minute;

6% 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 (HA721060) at 1/1,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:300,000 dilution was used for 1 hour at room temperature.

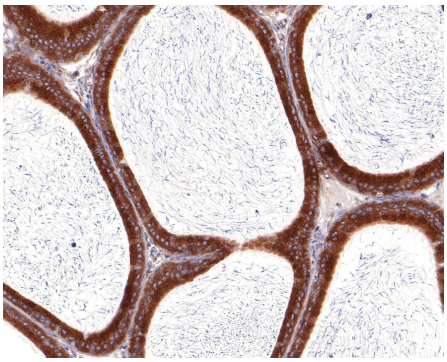

Fig4: Immunohistochemical analysis of paraffin-embedded rat epididymis tissue with Rabbit anti-USO1 antibody (HA721060) at 1/100 dilution.

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 (HA721060) at 1/100 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.

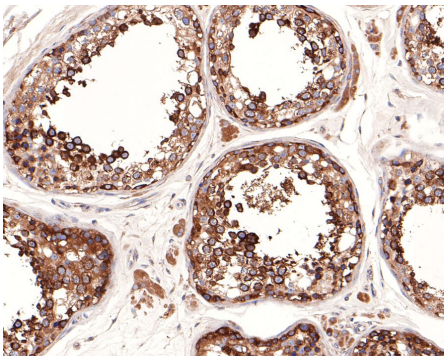

Fig5: Immunohistochemical analysis of paraffin-embedded human testis tissue with Rabbit anti-USO1 antibody (HA721060) at 1/100 dilution.

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 (HA721060) at 1/100 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.

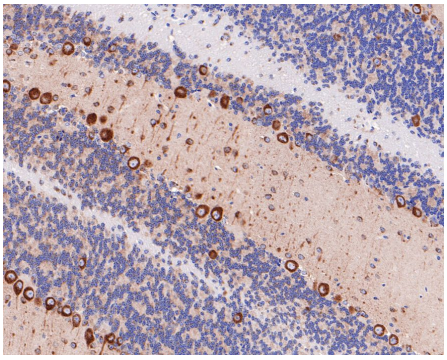

Fig6: Immunohistochemical analysis of paraffin-embedded mouse cerebellum tissue with Rabbit anti-USO1 antibody (HA721060) at 1/100 dilution.

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 (HA721060) at 1/100 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.

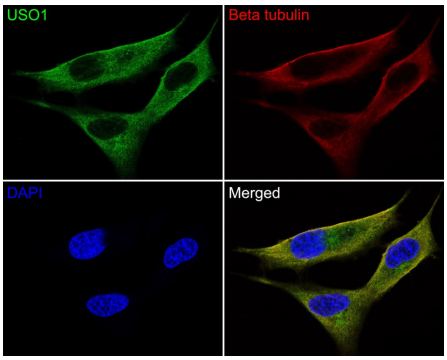

Fig7: Immunocytochemistry analysis of SH-SY5Y cells labeling USO1 with Rabbit anti-USO1 antibody (HA721060) at 1/50 dilution.

Cells were fixed in 4% paraformaldehyde for 10 minutes at 37 ℃, 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 Rabbit anti-USO1 antibody (HA721060) at 1/50 dilution in 2% negative goat serum overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (M1305-2, red) was stained at 1/200 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 647, HA1127) were used as the secondary antibody at 1/1,000 dilution.

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

Background References

1. Yoon S. et. al. USO1 isoforms differentially promote liver cancer progression by dysregulating the ER-Golgi network. Carcinogenesis. 2021 Oct
2. Heo Y. et. al. Crystal structures of Uso1 membrane tether reveal an alternative conformation in the globular head domain. Sci Rep. 2020 Jun