Anti-WWOX Antibody

HA500592

Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat, Monkey
Applications:	WB, IF-Cell, FC
Molecular Wt:	Predicted band size: 47 kDa

Description: WW domain-containing oxidoreductase is an enzyme that in humans is encoded by the WWOX gene. WW domain-containing proteins are found in all eukaryotes and play an important role in the regulation of a wide variety of cellular functions such as protein degradation, transcription, and RNA splicing. This gene encodes a protein which contains 2 WW domains and a short-chain dehydrogenase/reductase domain (SRD). The highest normal expression of this gene is detected in hormonally regulated tissues such as testis, ovary, and prostate. This expression pattern and the presence of an SRD domain suggest a role for this gene in steroid metabolism. The encoded protein is more than 90% identical to the mouse protein, which is an essential mediator of tumor necrosis factor-alpha-induced apoptosis, suggesting a similar, important role in apoptosis for the human protein. In addition, there is evidence that this gene behaves as a suppressor of tumor growth. Alternative splicing of this gene generates transcript variants that encode different isoforms. WWOX is also known as human accelerated region 6. It may, therefore, have played a key role in differentiating humans from apes.

Immunogen: Recombinant protein within human WWOX aa 1-414.

Positive control: MCF7 cell lysate, HepG2 cell lysate, HeLa cell lysate, NIH/3T3 cell lysate, C6 cell lysate, COS-1 cell lysate, Rat brain tissue lysate, HepG2, NIH/3T3.

Subcellular location: Cytoplasm, Nucleus, Mitochondrion, Golgi apparatus, Lysosome.

Database links: SwissProt: Q9NZC7 Human | Q91WL8 Mouse
Entrez Gene: 292041 Rat

Recommended Dilutions:

WB	1:5,000
IF-Cell	1:500
FC	1:2,000

Storage Buffer: 1*PBS (pH7.4), 0.1% BSA, 40% Glycerol, 0.2% Proclean 950.

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: Immunogen affinity purified.

Images

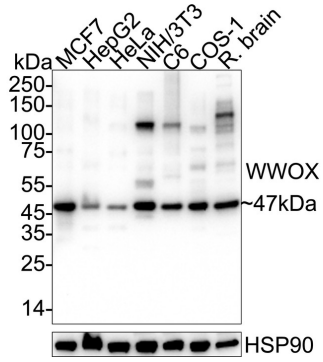

Fig1: Western blot analysis of WWOX on different lysates with Rabbit anti-WWOX antibody (HA500592) at 1/5,000 dilution.

Lane 1: MCF7 cell lysate
Lane 2: HepG2 cell lysate
Lane 3: HeLa cell lysate
Lane 4: NIH/3T3 cell lysate
Lane 5: C6 cell lysate
Lane 6: COS-1 cell lysate
Lane 7: Rat brain tissue lysate

Lysates/proteins at 15 µg/Lane.

Predicted band size: 47 kDa
Observed band size: 47 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 (HA500592) at 1/5,000 dilution was used in primary antibody dilution (K1803) at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

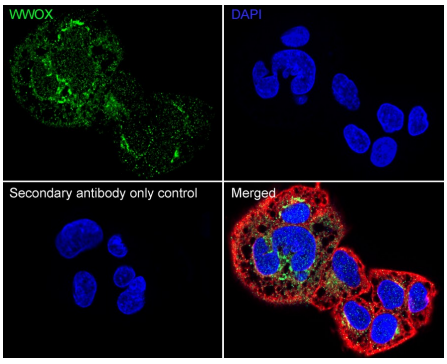

Fig2: Immunocytochemistry analysis of HepG2 cells labeling WWOX with Rabbit anti-WWOX antibody (HA500592) at 1/500 dilution.

Cells were fixed in 4% paraformaldehyde for 15 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 15 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-WWOX antibody (HA500592) at 1/500 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (HA601187, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

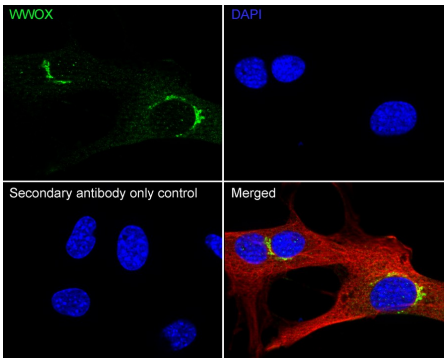

Fig3: Immunocytochemistry analysis of NIH/3T3 cells labeling WWOX with Rabbit anti-WWOX antibody (HA500592) at 1/500 dilution.

Cells were fixed in 4% paraformaldehyde for 15 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 15 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-WWOX antibody (HA500592) at 1/500 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (HA601187, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

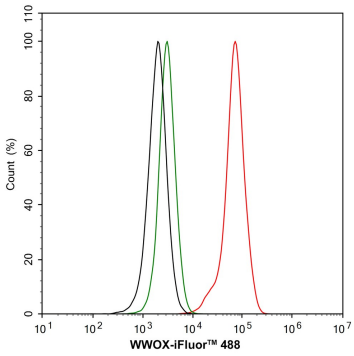

Fig4: Flow cytometric analysis of HepG2 cells labeling WWOX.

Cells were fixed and permeabilized. Then stained with the primary antibody (HA500592, 1μg/mL) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4℃ for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

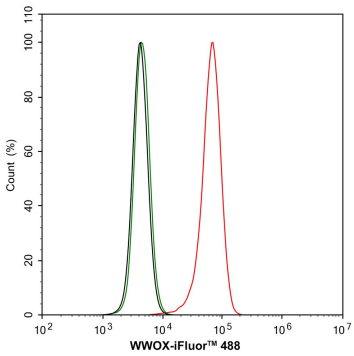

Fig5: Flow cytometric analysis of NIH/3T3 cells labeling WWOX.

Cells were fixed and permeabilized. Then stained with the primary antibody (HA500592, 1μg/mL) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4℃ for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

Background References

1. Hsu CY et al. WWOX and Its Binding Proteins in Neurodegeneration. Cells. 2021 Jul
2. Baryła I et al. WWOX and metabolic regulation in normal and pathological conditions. J Mol Med (Berl). 2022 Dec