Anti-Cyclin E2 Antibody [40-89]

M0407-15

Product Type:	Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Cell, IHC-P
Molecular Wt:	Predicted band size: 47 kDa
Clone number:	40-89

Description: Cyclin E2 is a member of the cyclin E family that can associate with and activate Cdk2. It is essential for the control of the cell cycle at the late G1 and early S phase. Cyclin E2 associates with Cdk2 in a functional kinase complex that is inhibited by both p27 (Kip1) and p21 (Cip1). Cyclin E2 is high expressed in adult testis, thymus and brain. Abnormally high levels of cyclin E expression have frequently been observed in human cancers.

Immunogen: Synthetic peptide within Human Cyclin E2 aa 1-50 / 404.

Positive control: HeLa cell lysate, Jurkat cell lysate, K-562 cell lysate, A549 cell lysate, MCF7 cell lysate, HEK-293 cell lysate, HepG2 cell lysate, HeLa, human breast carcinoma tissue, mouse brain tissue, human thyroid tissue, mouse thyroid tissue, rat testis tissue, human testis carcinoma tissue.

Subcellular location: Nucleus.

Database links: SwissProt: O96020 Human | Q9Z238 Mouse | D3ZQ41 Rat

Recommended Dilutions:

WB	1:1,000-1:5,000
IF-Cell	1:100
IHC-P	1:200

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

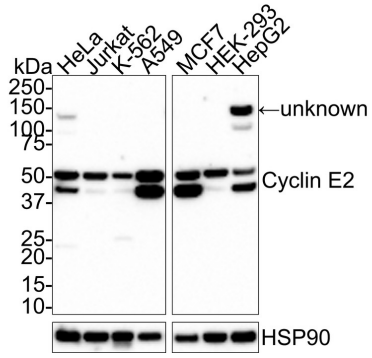

Fig1: Western blot analysis of Cyclin E2 on different lysates with Mouse anti-Cyclin E2 antibody (M0407-15) at 1/1,000 dilution.

Lane 1: HeLa cell lysate
Lane 2: Jurkat cell lysate
Lane 3: K-562 cell lysate
Lane 4: A549 cell lysate
Lane 5: MCF7 cell lysate
Lane 6: HEK-293 cell lysate
Lane 7: HepG2 cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 47 kDa
Observed band size: 51/47 kDa

Exposure time: 2 minutes;

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 (M0407-15) at 1/1,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1:150,000 dilution was used for 1 hour at room temperature.

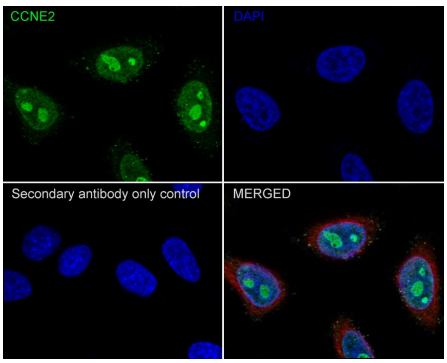

Fig2: Immunocytochemistry analysis of HeLa cells labeling Cyclin E2 with Mouse anti-Cyclin E2 antibody (M0407-15) at 1/100 dilution.

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-Cyclin E2 antibody (M0407-15) at 1/100 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.

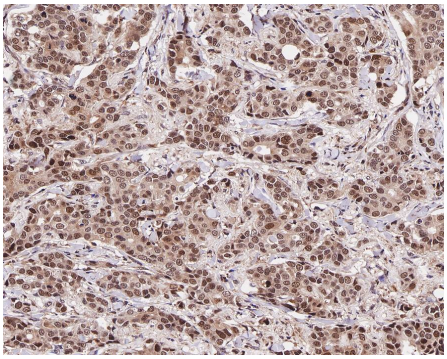

Fig3: Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue with Mouse anti-Cyclin E2 antibody (M0407-15) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) 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 (M0407-15) at 1/200 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.

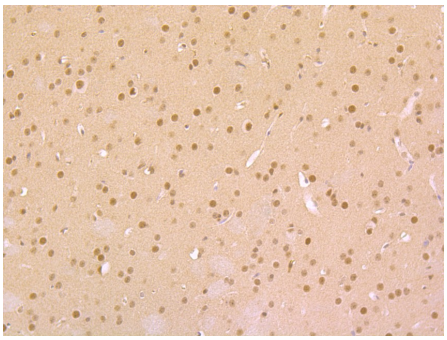

Fig4: Immunohistochemical analysis of paraffin-embedded mouse brain tissue with Mouse anti-Cyclin E2 antibody (M0407-15) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) 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 (M0407-15) at 1/200 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.

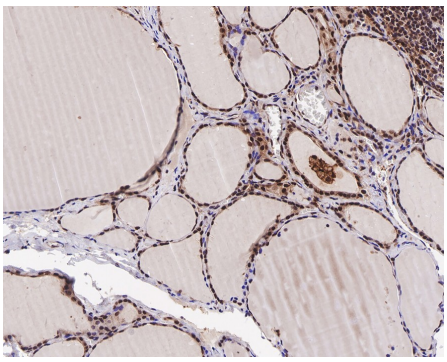

Fig5: Immunohistochemical analysis of paraffin-embedded human thyroid tissue with Mouse anti-Cyclin E2 antibody (M0407-15) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) 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 (M0407-15) at 1/200 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.

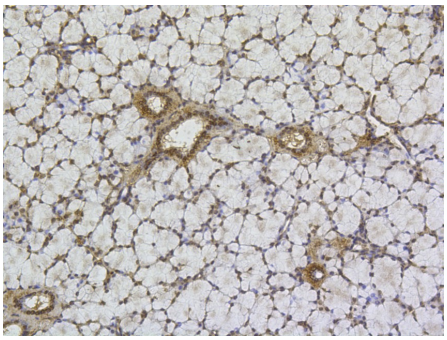

Fig6: Immunohistochemical analysis of paraffin-embedded mouse thyroid tissue with Mouse anti-Cyclin E2 antibody (M0407-15) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) 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 (M0407-15) at 1/200 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.

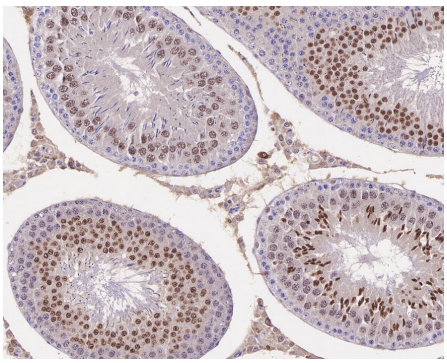

Fig7: Immunohistochemical analysis of paraffin-embedded rat testis tissue with Mouse anti-Cyclin E2 antibody (M0407-15) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) 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 (M0407-15) at 1/200 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.

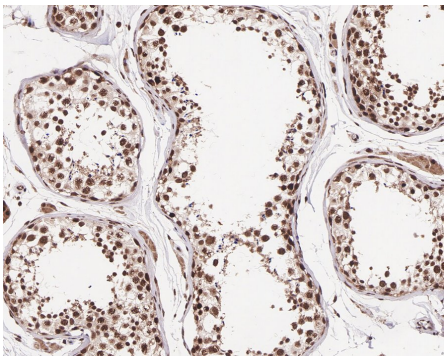

Fig8: Immunohistochemical analysis of paraffin-embedded human testis carcinoma tissue with Mouse anti-Cyclin E2 antibody (M0407-15) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) 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 (M0407-15) at 1/200 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.

Background References

1. Lauper N., Beck A.R.P., Cariou S., Richman L., Hofmann K., Reith W., Slingerland J.M., Amati B.; "Cyclin E2: a novel CDK2 partner in the late G1 and S phases of the mammalian cell cycle."; Oncogene 17:2637-2643(1998).
2. Zariwala M., Liu J., Xiong Y.; "Cyclin E2, a novel human G1 cyclin and activating partner of CDK2 and CDK3, is induced by viral oncoproteins."; Oncogene 17:2787-2798(1998).