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Cyclin E1 Rabbit pAb

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Catalog # AP52202

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P39949
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	47482
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from rat Cyclin E
Epitope Specificity	375-411/411
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nucleus.
SIMILARITY	Belongs to the cyclin family. Cyclin E subfamily.
SUBUNIT	Interacts with a member of the CDK2/CDK protein kinases to form a serine/threonine kinase holoenzyme complex. The cyclin subunit imparts substrate specificity to the complex. Found in a complex with CDK2, CABLES1 and CCNA1 (By similarity). Part of a complex consisting of UHRF2, CDK2 and CCNE1. Interacts directly with UHRF2; the interaction ubiquitinates CCNE1 and appears to occur independently of CCNE1 phosphorylation.
Post-translational modifications	Phosphorylation of Thr-395 by GSK3 and of Ser-399 by CDK2 accelerates degradation via the ubiquitin proteasome pathway. Phosphorylated upon DNA damage, probably by ATM or ATR.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Cyclin E is a regulatory subunit of Cdk2 and controls G1 / S transition during the mammalian cell cycle. Multiple isoforms of Cyclin E are only expressed in tumors but not in normal tissue, suggesting a post transcriptional regulation of Cyclin E. In vitro analyses indicated that these truncated variant isoforms of Cyclin E are able to phosphorylate histone H1. Alterations in the Cyclin E protein have been implicated as indicators of worse prognosis in various cancers.

Additional Information

Other Names	G1/S-specific cyclin-E1, Ccne1, Ccne
Target/Specificity	Highly expressed in testis and placenta. Low levels in bronchial epithelial cells.
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1 g/Test

Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	Ccne1
Synonyms	Ccne
Function	Essential for the control of the cell cycle at the G1/S (start) transition.
Cellular Location	Nucleus {ECO:0000250|UniProtKB:P24864}.

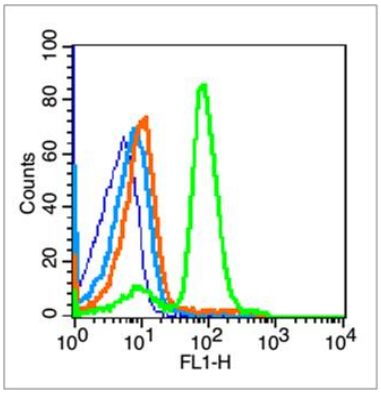
Background

Cyclin E is a regulatory subunit of Cdk2 and controls G1 / S transition during the mammalian cell cycle. Multiple isoforms of Cyclin E are only expressed in tumors but not in normal tissue, suggesting a post transcriptional regulation of Cyclin E. In vitro analyses indicated that these truncated variant isoforms of Cyclin E are able to phosphorylate histone H1. Alterations in the Cyclin E protein have been implicated as indicators of worse prognosis in various cancers.

References

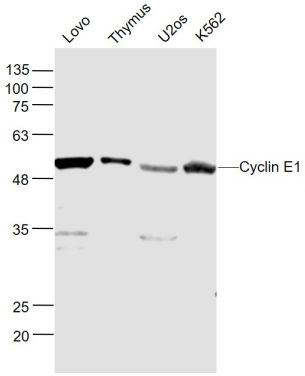
Tamura K.,et al.Oncogene 8:2113-2118(1993).
Hosokawa Y.,et al.Biochem. Mol. Biol. Int. 37:393-399(1995).

Images

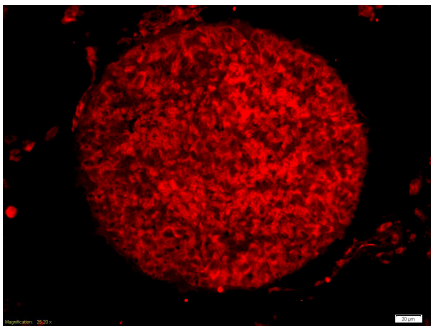


Blank control (blue line): Mouse spleen cells (blue).
Primary Antibody (green line): Rabbit Anti-Cyclin E1 antibody (AP52202)
Dilution: 1 µg /10^6 cells;
Isotype Control Antibody (orange line): Rabbit IgG .
Secondary Antibody (white blue line): Goat anti-rabbit IgG-FITC
Dilution: 1 µg /test.
Protocol
The cells were fixed with 70% ethanol (overninght at 4°C) and then permeabilized with 0.1% PBS-Tween for 20 min at room temperature. Cells stained with Primary Antibody for 30 min at room temperature. The cells were then incubated in 1 X PBS/2%BSA/10% goat serum to block non-specific protein-protein interactions followed by the antibody for 15 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

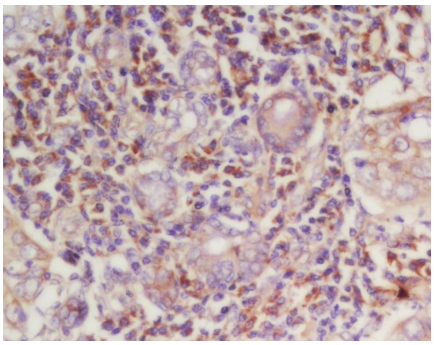
Sample:
Lovo (Human) Cell Lysate at 30 ug
Thymus (Mouse) Lysate at 40 ug
U2os (Human) Cell Lysate at 30 ug



K562 (Human) Cell Lysate at 30 ug
Primary: Anti- Cyclin E1 (AP52202) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 45 kD
Observed band size: 50 kD



Tissue/cell: rat testis tissue;4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;
Incubation: Anti-Cyclin E Polyclonal Antibody, Unconjugated(AP52202) 1:200, overnight at 4°C; The secondary antibody was Goat Anti-Rabbit IgG, Cy3 conjugated(AP52202-Cy3)used at 1:200 dilution for 40 minutes at 37°C.



Tissue/cell: human laryngocarcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;
Incubation: Anti-Cyclin-E Polyclonal Antibody, Unconjugated(AP52202) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

Citations

- Targeting the overexpressed CREB inhibits esophageal squamous cell carcinoma cell growth.