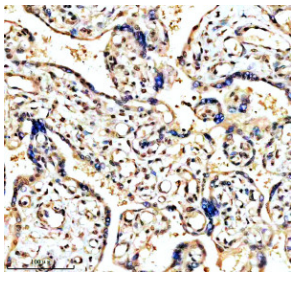
Phospho-Cyclin E1 (T77) Antibody / Phospho-CCNE1 Antibody [clone GHC-3] (FY13505)

Catalog No.	Formulation	Size
FY13505	Rabbit IgG in stabilizing components, phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol	100 ul

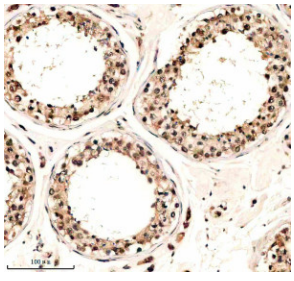
Recombinant RABBIT MONOCLONAL

Bulk quote request

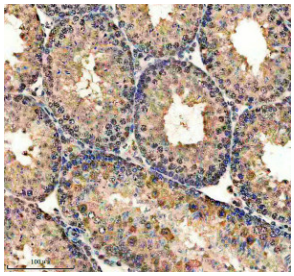
Species Reactivity	Human, Mouse
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	GHC-3
Purity	Antigen chromatography
UniProt	P24864
Applications	Western blot: 1:500 Immunohistochemistry: 1:50
Limitations	This Phospho-Cyclin E1 (T77) Antibody / Phospho-CCNE1 Antibody is available for research use only.



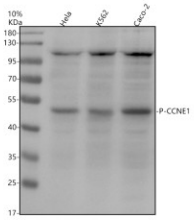
Phospho-CCNE1 (T77) Antibody in Human Placenta IHC. Immunohistochemistry staining of FFPE human placenta tissue with Phospho-Cyclin E1 (T77) Antibody / Phospho-CCNE1 Antibody. Tissue sections underwent HIER in EDTA buffer, pH 8.0, and were blocked with 10% goat serum. The antibody was used at 1:50 overnight at 4oC, followed by a peroxidase-conjugated goat anti-rabbit IgG secondary antibody and DAB detection. The observed staining demonstrates recognition of phospho-Cyclin E1 in human placental tissue.



Phospho-Cyclin E1 (T77) Antibody in Human Testis IHC. Immunohistochemistry staining of FFPE human testis tissue with Phospho-Cyclin E1 (T77) Antibody / Phospho-CCNE1 Antibody. HIER was performed in EDTA buffer, pH 8.0, followed by blocking with 10% goat serum. The antibody was used at 1:50 overnight at 4oC, followed by a peroxidase-conjugated goat anti-rabbit IgG secondary antibody and DAB detection. This Phospho-Cyclin E1 Antibody demonstrates staining in human testis tissue.



Phospho-Cyclin E1 (T77) Antibody in Mouse Testis IHC. Immunohistochemistry staining of FFPE mouse testis tissue with Phospho-Cyclin E1 (T77) Antibody / Phospho-CCNE1 Antibody. HIER was performed in EDTA buffer, pH 8.0, followed by blocking with 10% goat serum. The antibody was used at 1:50 overnight at 4oC, followed by a peroxidase-conjugated goat anti-rabbit IgG secondary antibody and DAB detection. This Phospho-CCNE1 Antibody demonstrates tissue staining in mouse testis.



Phospho-Cyclin E1 (T77) Antibody in Human Cancer Cell Lines WB. Western blot testing of human HeLa, K562 and Caco-2 cell lysates with Phospho-Cyclin E1 (T77) Antibody / Phospho-CCNE1 Antibody. Lane 1: HeLa; Lane 2: K562; Lane 3: Caco-2. Samples were separated by 10% SDS-PAGE under reducing conditions and the antibody was used at 1:500 overnight at 4oC. A goat anti-rabbit IgG-HRP secondary antibody was used at 1:5000. A band was observed at approximately 47 kDa across the tested cell lines, consistent with the reported molecular size of CCNE1.

Description

Phospho-Cyclin E1 (T77) Antibody / Phospho-CCNE1 Antibody detects Cyclin E1 phosphorylated at threonine 77. Cyclin E1 is encoded by the CCNE1 gene and is a key regulator of cell cycle progression, particularly the transition from G1 into S phase. Cyclin E1 associates with cyclin-dependent kinase 2 (CDK2) to form an active kinase complex that phosphorylates substrates involved in DNA replication, centrosome duplication and other processes required for progression through the cell cycle.

Cyclin E1 abundance is tightly regulated during the cell cycle. CCNE1 levels increase during late G1, peak around the G1/S transition and subsequently decline as cells progress through S phase. In addition to changes in protein abundance, Cyclin E1 activity and stability are regulated by post-translational modifications, including phosphorylation. Phosphorylation at specific residues can influence Cyclin E1 turnover and interactions with components of the cell cycle machinery, providing additional control over the timing and magnitude of Cyclin E1-CDK2 activity.

Dysregulation of CCNE1 is frequently investigated in cancer biology because elevated Cyclin E1 expression, amplification of the CCNE1 locus and disruption of normal Cyclin E1 regulation can contribute to uncontrolled proliferation and genomic instability. Altered Cyclin E1-CDK2 signaling has been studied in ovarian, breast and other cancers and is relevant to research into cell cycle checkpoints, DNA replication and therapeutic responses. A Phospho-CCNE1 Antibody enables investigation of a defined phosphorylation site within this broader regulatory network.

Clone GHC-3 is a recombinant rabbit monoclonal antibody developed to recognize Cyclin E1 phosphorylated at Thr77. The antibody has been validated by Western blot using human HeLa, K562 and Caco-2 cell lysates, where a band was observed at approximately 47 kDa, consistent with the reported molecular size of CCNE1. Immunohistochemistry validation includes FFPE human testis, human placenta and mouse testis, providing additional tissue-based characterization of the antibody.

NSJ Bioreagents supplies phospho-specific antibodies for research into protein regulation and cell signaling. A Phospho-Cyclin E1 (T77) Antibody can be used to investigate site-specific CCNE1 phosphorylation in studies of cell cycle regulation, G1/S phase progression, proliferative signaling and cancer biology.

For additional reagents targeting site-specific protein phosphorylation, explore our Phospho Antibody - Phosphorylation Specific Antibodies page.

Explore our Cyclin E1 Antibody / G1-S Cell Cycle Regulator Antibody page for additional validation data and applications

involving cell cycle progression, DNA replication, and cellular proliferation.

Application Notes

Optimal dilution of the Phospho-Cyclin E1 (T77) Antibody / Phospho-CCNE1 Antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Cyclin E1 surrounding pT77 was used as the immunogen for the Phospho-Cyclin E1 (T77) Antibody.

Storage

Store the Phospho-Cyclin E1 (T77) Antibody at -20oC for one year, or at 4oC for one month.

Alternate Names

Phospho-Cyclin E1 T77 antibody, Phospho-CCNE1 antibody, CCNE1 phospho-Thr77 antibody, Cyclin E1 phospho-Thr77 antibody

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