Data Sheet (Cat.No.TMAY-01665)

Anti-Phospho-Chk1 (Ser317) Antibody (5Q489)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	5Q489
Purification:	Protein A

Applications

Verified Activity:	1. Western blot analysis of extracts from serum-starved HEK293, untreated (-) or treated with UV (1 h; +), using Phospho-Chk1 (Ser317) rabbit Monoclonal Antibody at 1:2000 dilution (upper) or Beta-Tubulin Loading Control Antibody, Rabbit MAb (Chimeric) at 1:40000 dilution (lower). 2. Immunohistochemical analysis of paraffin-embedded human testis, untreated (left) or lambda phosphatase-treated (right), using Phospho-Chk1 (Ser317) Antibody, Rabbit Monoclonal at 1:1000 dilution. 3. Western blot analysis of extracts from serum-starved HEK293, untreated (line A); treated with UV (1 h), without peptide (line B) or antigen-specific phosphopeptide (line C) or antigen-specific peptide (line D) using Phospho-Chk1 (Ser317) rabbit monoclonal Antibody at 1:2000 dilution. (Validation Experiment) 4. Western blot analysis of extracts from serum-starved HEK-293, untreated (-) (line A); treated with UV (1 h; +) (line B); treated with UV and λ-phosphatase (line C) using Phospho-Chk1 (Ser317) rabbit monoclonal Antibody at 1:2000 dilution. (Validation Experiment)
Application:	IHC-P,WB
Recommended	WB: 1:1000-1:2000; IHC-P: 1:500-1:2000

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	A synthetic peptide: residues around Ser317 of human Chk1.
Antigen Species:	Human
Synonyms:	CHK-1;p-Chk1 (S317);p-Chk1 (Ser317);OZEMA21;Phospho-Chk1 (S317);Chk1 (p-S317);Chk1 (p-Ser317)
Biology Area:	Cancer Drug Targets, Tumor Suppressors

Research Background

CHK1 / CHEK1 contains 1 protein kinase domain and belongs to the protein kinase superfamily, CAMK Ser/Thr protein kinase family, NIM1 subfamily. It is a member of checkpoint kinases (Chks). Chks Checkpoint kinases (Chks) are serine/threonine kinases that are involved in the control of the cell cycle. There are two subtypes of chks that have so far been identified, CHK1 / CHEK1 and Chk2. They are essential components to delay cell cycle progression

in normal and damaged cells and can act at all three cell cycle checkpoints. Chks are activated by phosphorylation. ATR kinase phosphorylates CHK1 / CHEK1 in response to single strand DNA breaks and ATM kinase phosphorylates Chk2 in response to double strand breaks. Chks phosphorylate Cdc25 phosphatase at Ser216, which leads to Cdc25 sequestration in the cytoplasm. Chks have a role in the physiological stress of hypoxia/reoxygenation. CHK1 / CHEK1 is required for checkpoint mediated cell cycle arrest in response to DNA damage or the presence of unreplicated DNA. CHK1 / CHEK1 may also negatively regulate cell cycle progression during unperturbed cell cycles.Cancer ImmunotherapyImmune CheckpointImmunotherapyTargeted Therapy