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Phospho-Chk2 (Ser516) Antibody
Catalog # ABV11995

Specification

Phospho-Chk2 (Ser516) Antibody - Product Information

Application	**WB**
Primary Accession	O96017
Reactivity	**Human, Monkey**
Host	**Rabbit**
Isotype	**Rabbit IgG**
Calculated MW	**60915**

Phospho-Chk2 (Ser516) Antibody - Additional Information

Gene ID 11200

Positive Control	**WB: COS 7 cell lysate**
Application & Usage	**WB 1:500-1:2000; E 1:10000**

Other Names
Serine/threonine-protein kinase Chk2, CHK2 checkpoint homolog, Cds1 homolog, Hucds1, hCds1, Checkpoint kinase 2, CHEK2

Target/Specificity
CHEK2

Antibody Form
Liquid

Appearance
Colorless liquid

Handling
The antibody solution should be gently mixed before use

Reconstitution & Storage
-20°C

Background Descriptions

Precautions
Phospho-Chk2 (Ser516) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Phospho-Chk2 (Ser516) Antibody - Protein Information

Name CHEK2

Synonyms CDS1, CHK2, RAD53

Function
Serine/threonine-protein kinase which is required for checkpoint-mediated cell cycle arrest, activation of DNA repair and apoptosis in response to the presence of DNA double-strand breaks. May also negatively regulate cell cycle progression during unperturbed cell cycles. Following activation, phosphorylates numerous effectors preferentially at the consensus sequence [L-X-R-X-X-S/T]. Regulates cell cycle checkpoint arrest through phosphorylation of CDC25A, CDC25B and CDC25C, inhibiting their activity. Inhibition of CDC25 phosphatase activity leads to increased inhibitory tyrosine phosphorylation of CDK- cyclin complexes and blocks cell cycle progression. May also phosphorylate NEK6 which is involved in G2/M cell cycle arrest. Regulates DNA repair through phosphorylation of BRCA2, enhancing the association of RAD51 with chromatin which promotes DNA repair by homologous recombination. Also stimulates the transcription of genes involved in DNA repair (including BRCA2) through the phosphorylation and activation of the transcription factor FOXM1. Regulates apoptosis through the phosphorylation of p53/TP53, MDM4 and PML. Phosphorylation of p53/TP53 at 'Ser-20' by CHEK2 may alleviate inhibition by MDM2, leading to accumulation of active p53/TP53. Phosphorylation of MDM4 may also reduce degradation of p53/TP53. Also controls the transcription of pro-apoptotic genes through phosphorylation of the transcription factor E2F1. Tumor suppressor, it may also have a DNA damage-independent function in mitotic spindle assembly by phosphorylating BRCA1. Its absence may be a cause of the chromosomal instability observed in some cancer cells. Promotes the CCAR2-SIRT1 association and is required for CCAR2-mediated SIRT1 inhibition (PubMed:25361978).

Cellular Location
[Isoform 2]: Nucleus. Note=Isoform 10 is present throughout the cell [Isoform 7]: Nucleus. [Isoform 12]: Nucleus.

Tissue Location
High expression is found in testis, spleen, colon and peripheral blood leukocytes. Low expression is found in other tissues

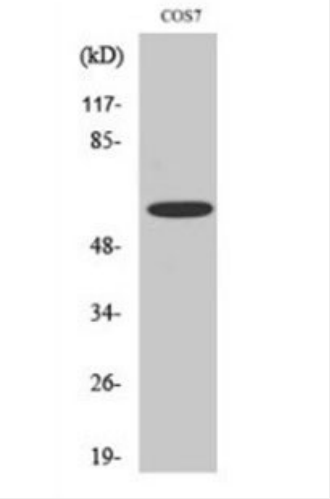
Phospho-Chk2 (Ser516) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Phospho-Chk2 (Ser516) Antibody - Images

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WB analysis of COS7 cells using Phospho-Chk2 (S516) Polyclonal Antibody