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Mouse Anti-CHEK2 antibody

SLM-60559M

Product Name	CHEK2
Chinese Name	细胞周期检测点激酶 2 单克隆抗体
Alias	CHK2_HUMAN; Serine/threonine-protein kinase Chk2; EC:2.7.11.1; Serine/threonine-protein kinase Chk2; CDS1; CHK2; LFS2; RAD53; hCds1; HuCds1; PP1425; CHK2 checkpoint homolog; Cds1 homolog (Hucds1; hCds1); Checkpoint kinase 2;
Immunogen Species	Mouse
Clonality	Monoclonal
Clone NO.	E3E7
React Species	Human
Applications	WB=1:500-2000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	56kDa
Cellular localization	The nucleus
Form	Liquid
Concentration	1mg/ml
Lsotype	IgG2B/lambda
Purification	Affinity purified by Protein G
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
PubMed	PubMed
Product Detail	In response to DNA damage and replication blocks, cell cycle progression is halted through the control of critical cell cycle regulators. The protein encoded by this gene is a cell cycle checkpoint regulator and putative tumor suppressor. It contains a forkhead-associated protein interaction domain essential for activation in response to

DNA damage and is rapidly phosphorylated in response to replication blocks and DNA damage. When activated, the encoded protein is known to inhibit CDC25C phosphatase, preventing entry into mitosis, and has been shown to stabilize the tumor suppressor protein p53, leading to cell cycle arrest in G1. In addition, this protein interacts with and phosphorylates BRCA1, allowing BRCA1 to restore survival after DNA damage. Mutations in this gene have been linked with Li-Fraumeni syndrome, a highly penetrant familial cancer phenotype usually associated with inherited mutations in TP53. Also, mutations in this gene are thought to confer a predisposition to sarcomas, breast cancer, and brain tumors. This nuclear protein is a member of the CDS1 subfamily of serine/threonine protein kinases. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Apr 2012]

Subcellular Location:
Isoform 2: Nucleus. Note=Isoform 10 is present throughout the cell.
Isoform 4: Nucleus.
Isoform 7: Nucleus.
Isoform 9: Nucleus.
Isoform 12: Nucleus.
Nucleus, PML body. Nucleus, nucleoplasm. Note=Recruited into PML bodies together with TP53.

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

SWISS:
O96017

Gene ID:
11200

Database links:

Entrez Gene: 11200 Human

SwissProt: O96017 Human

丝氨酸/苏氨酸蛋白激酶，是检测点介导的细胞周期阻滞、DNA 修复激活和 DNA 双链断裂引起的 Apoptosis 所必需的。在未受干扰的细胞周期中也可能负性调节细胞周期进程。活化后，在共有序列[L-X-R-X-X-S/T]上优先磷酸化许多效应子。通过 CDC25A、CDC25B 和 CDC25C 的磷酸化调节细胞周期检查点阻滞，抑制其活性。CDC25 磷酸酶活性的抑制导致 CDK-Cyclin 复合物酪氨酸磷酸化的抑制性增加并阻断细胞周期进程。

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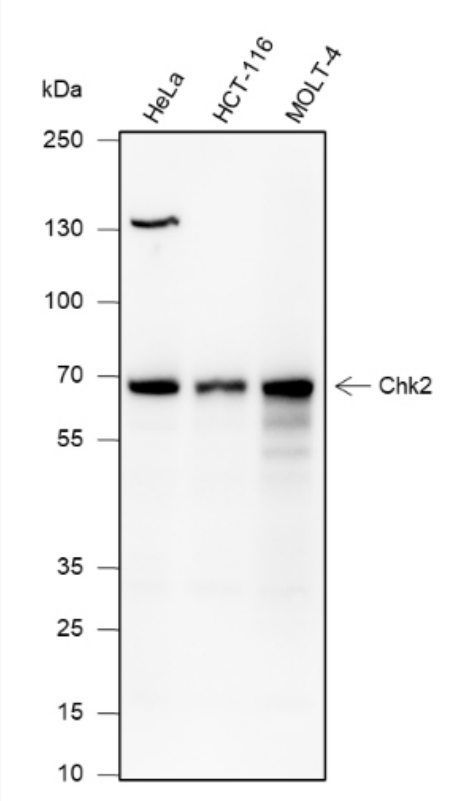
也可能磷酸化参与 G2/M 细胞周期阻滞的 NEK6。通过 BRCA2 的磷酸化调节 DNA 修复，增强 RAD51 与染色质的结合，通过同源重组促进 DNA 修复。还通过转录因子 FOXM1 的磷酸化和激活刺激参与 DNA 修复的基因（包括 BRCA2）的转录。

Product Picture



Blocking buffer: 5% NFDM/TBST

Primary ab dilution: 1:1000

Primary ab incubation condition: room temperature 2h

Secondary ab: Goat Anti-Mouse IgG H&L (HRP)

Lysate: HeLa, HCT-116, MOLT-4

Protein loading quantity: 20 μg

Exposure time: 30 s

Predicted MW: 62 kDa

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Observed MW: 62 kDa