bs-3721R **[Primary Antibody]**

phospho-CHEK2 (Thr68) Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 11200 **SWISS:** O96017

Target: CHEK2 (Thr68)

Immunogen: KLH conjugated Synthesised phosphopeptide derived from human CHK2 around the phosphorylation site of Thr68: VS(p-T)QE.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: 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]

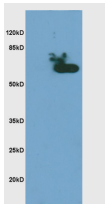
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)

Reactivity: Human, Rat (predicted: Mouse, Pig, Cow, Dog, Horse)

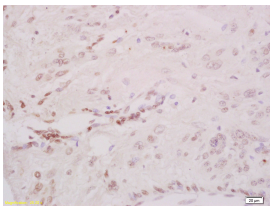
Predicted MW.: 61 kDa

Subcellular Location: Nucleus

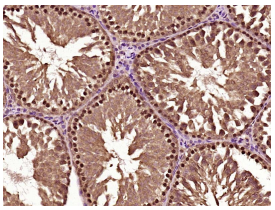
VALIDATION IMAGES



Sample: Lane1: Brain(Rat) Lysate at 30 ug Lane2: Colon carcinoma(Human) Lysate at 30 ug
Primary: Anti-Phospho-CHK2(Thr68) (bs-3721R) at 1:200dilution; Secondary: HRP conjugated Goat Anti-Rabbit IgG(bs-0295G-HRP) at 1: 3000 dilution; Predicted band size : 61kD Observed band size : 61kD



Tissue/cell: human cervical carcinoma; 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°C for 20 min; Incubation: Anti-Phospho-CHK2(Thr68) Polyclonal Antibody, Unconjugated(bs-3721R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Paraformaldehyde-fixed, paraffin embedded (Rat testis); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Phospho-CHK2 (Thr68)) Polyclonal Antibody, Unconjugated (bs-3721R) at 1:500 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.

SELECTED CITATIONS

- **[IF=7.5]** Baochen Zhou. et al. Quercetin inhibits DNA damage responses to induce apoptosis via SIRT5/PI3K/AKT pathway in non-small cell lung cancer. BIOMED PHARMACOTHER. 2023 Sep;165:115071 WB ;Human. 37390710
- **[IF=5.5]** Luo Q et al. Sodium Fluoride Arrests Renal G2/M Phase Cell-Cycle Progression by Activating ATM-Chk2-P53/Cdc25C Signaling Pathway in Mice.(2018) Cell Physiol Biochem. 51(5):2421-2433. WB ;Mouse. 30537743
- **[IF=5.988]** Dan Liang. et al. Metformin Improves the Senescence of Renal Tubular Epithelial Cells in a High-Glucose State Through E2F1. FRONT PHARMACOL. 2022; 13: 926211 WB ;Mouse. 35814218
- **[IF=5.008]** Yin, H., et al. "The molecular mechanism of G2M cell cycle arrest induced by AFB1 in the jejunum." Oncotarget (2016). IHC ;Chicken. 27232757
- **[IF=5.008]** Guo, Hongrui, et al. "Dietary NiCl2 causes cell cycle arrest in the broiler's kidney." Oncotarget. (2015) 6.34:35964-77. IHC ;Chicken. 26440151