bs-1681R **[Primary Antibody]**

CHK1 Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 1111 **SWISS:** O14757

Target: CHK1

Immunogen: KLH conjugated synthetic peptide derived from human CHK1: 85-125/476.

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: The protein encoded by this gene belongs to the Ser/Thr protein kinase family. It is required for checkpoint mediated cell cycle arrest in response to DNA damage or the presence of unreplicated DNA. This protein acts to integrate signals from ATM and ATR, two cell cycle proteins involved in DNA damage responses, that also associate with chromatin in meiotic prophase I. Phosphorylation of CDC25A protein phosphatase by this protein is required for cells to delay cell cycle progression in response to double-strand DNA breaks. Several alternatively spliced transcript variants have been found for this gene.[provided by RefSeq, Oct 2011].

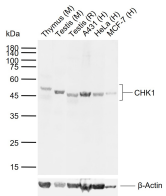
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)

Reactivity: Human, Mouse, Rat

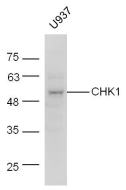
Predicted MW.: 54 kDa

Subcellular Location: Cytoplasm ,Nucleus

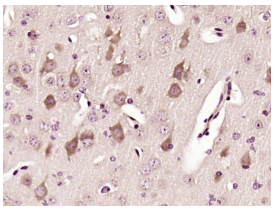
VALIDATION IMAGES



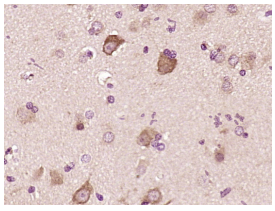
Sample: Lane 1: Mouse Thymus tissue lysates Lane 2: Mouse Testis tissue lysates Lane 3: Rat Testis tissue lysates Lane 4: Human A431 cell lysates Lane 5: Human HeLa cell lysates Lane 6: Human MCF-7 cell lysates Primary: Anti-CHK1 (bs-1681R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 54 kDa Observed band size: 47 kDa



Sample: U937 Cell Lysate at 30 ug Primary: Anti-CHK1 (bs-1681R) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 54 kD Observed band size: 54 kD



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); 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 (CHK1) Polyclonal Antibody, Unconjugated (bs-1681R) at 1:400 overnight at 4°C, followed by a conjugated secondary antibody (sp-0023) for 20 minutes and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Human glioma); 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 (CHK1) Polyclonal Antibody, Unconjugated (bs-1681R) at 1:400 overnight at 4°C, followed by a conjugated secondary antibody (sp-0023) for 20 minutes and DAB staining.

SELECTED CITATIONS

- **[IF=6.1]** Shan Zhang. et al. Synergistic lethality between auranofin-induced oxidative DNA damage and ATR inhibition in cancer cells. LIFE SCI. 2023 Nov;332:122131 WB ;Human. 37778414
- **[IF=5.191]** Ying Zhou. et al. ChK1 activation induces reactive astrogliosis through CIP2A/PP2A/STAT3 pathway in Alzheimer's disease. Faseb J. 2022 Mar;36(3):e22209 WB,IP,IF ;Mouse,Human,Rat. 35195302
- **[IF=4.207]** Xiaoyue Zhang. et al. N6-methyladenosine regulates ATM expression and downstream signaling. J Cancer. 2021; 12(23): 7041–7051 WB ;Human. 34729106
- **[IF=2.65]** Ruoyang Lin. et al. Inhibitory Effects of Rabdosia rubescens in Esophageal Squamous Cell Carcinoma: Network Pharmacology and Experimental Validation. EVID-BASED COMPL ALT. 2022 Nov 10;2022:2696347 WB ;Human. 36408344
- **[IF=2.2]** Zhufeng Tong. et al. Glycyrrhizin enhances the antitumor activity of cisplatin in non-small cell lung cancer cells by influencing DNA damage and apoptosis. ONCOL LETT. 2025 Apr;29(4):1-10 WB ;Human. 40070780