

[KD Validated] Anti-CHEK2 Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

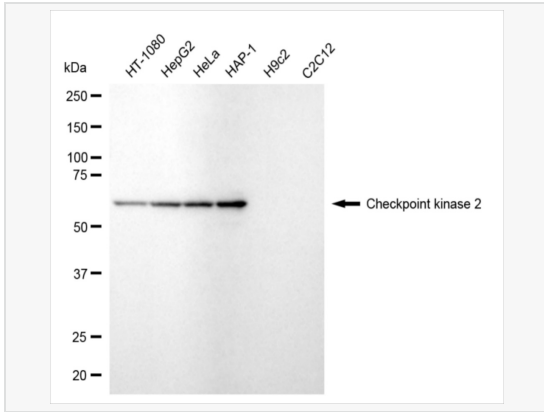
Catalog # R020839

Product Information

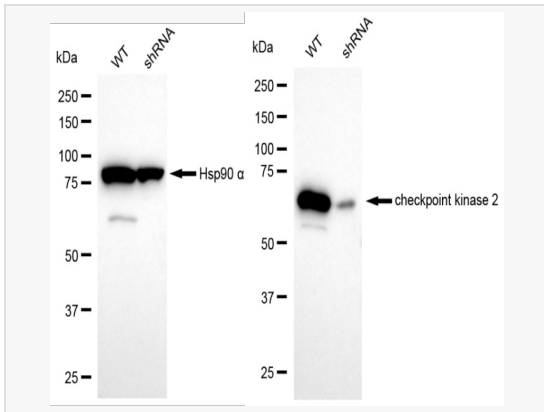
Application	WB, FC, IF (Cell)/ICC, IHC-P/IF (Tissue-P)
Reactivity	Human
Dilution	WB 1:1,000~1:5,000; FC 1:200~1:2,000; IF 1:100~1:1,000; IHC-P 1:100~1:200
Host	Rabbit
Clonality	Monoclonal
Clone No.	44L69H30
Isotype	IgG
Label	Unconjugated
Immunogen	Recombinant protein of human Chk2
Format	Affinity purified monoclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 12 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	[KD Validated] Anti-CHEK2 Rabbit mAb [44L69H30] is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

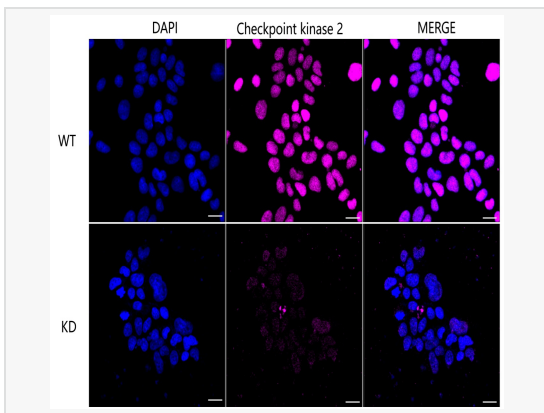
Synonyms	CHEK2; Checkpoint Kinase 2; CDS1; CHK2; PP1425; RAD53; Serine/Threonine-Protein Kinase Chk2; CHK2 Checkpoint Homolog; Cds1 Homolog; BA444G7; HuCds1; HCds1; CHK2 (Checkpoint, S.Pombe) Homolog; CHK2 Checkpoint Homolog (S. Pombe); Checkpoint-Like Protein CHK2; EC 2.7.11.1; EC 2.7.11 48; HUCDS1; Hucds1; LFS2.
Calculated MW	Calculated MW: 61 kDa, Observed MW: 61 kDa
Uniprot ID	O96017
Gene ID	11200
Background	These are known to be preferred sites for phosphorylation by ATM/ATR kinases. After DNA damage by ionizing radiation (IR), UV irradiation, or hydroxyurea treatment, Thr68 and other sites in this region become phosphorylated by ATM/ATR. The SQ/TQ cluster domain, therefore, seems to have a regulatory function.



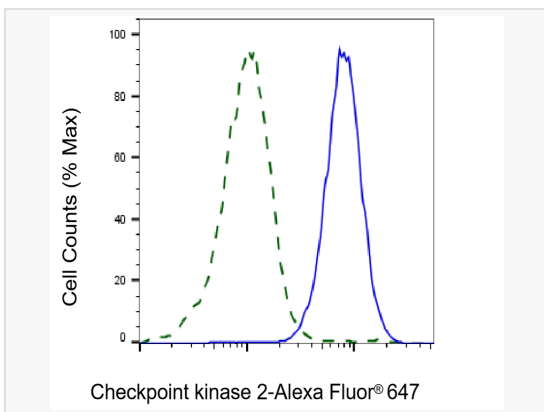
Western blotting analysis using checkpoint kinase 2 antibody (R020839). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with checkpoint kinase 2 antibody (R020839, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



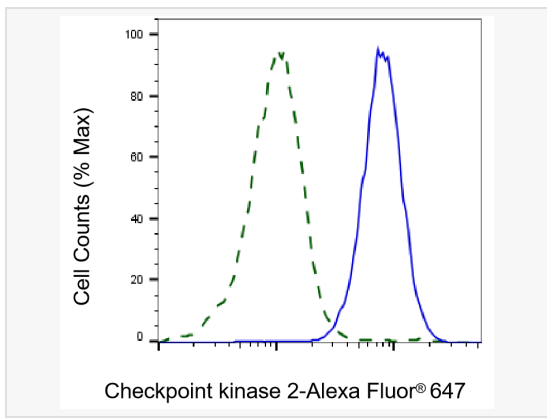
Western blotting analysis using checkpoint kinase 2 antibody (R020839). Checkpoint kinase 2 expression in wild type (WT) and checkpoint kinase 2 (CHEK2) shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with checkpoint kinase 2 antibody (R020839, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



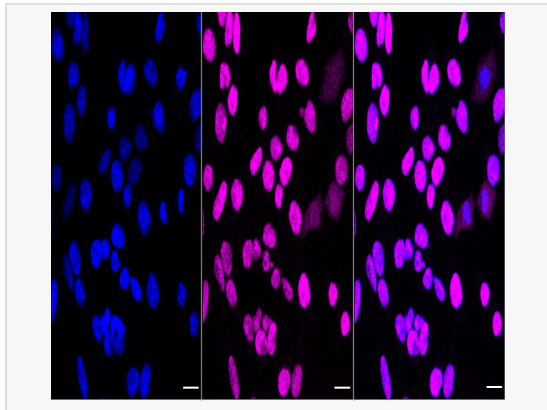
Immunocytochemical staining of HeLa cells using Checkpoint kinase 2 antibody (R020839, 1:1,000), Top panel: wild-type (WT); Bottom panel: Checkpoint kinase 2 shRNA knockdown (KD). Nuclei were stained blue with DAPI; Checkpoint kinase 2 was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm.



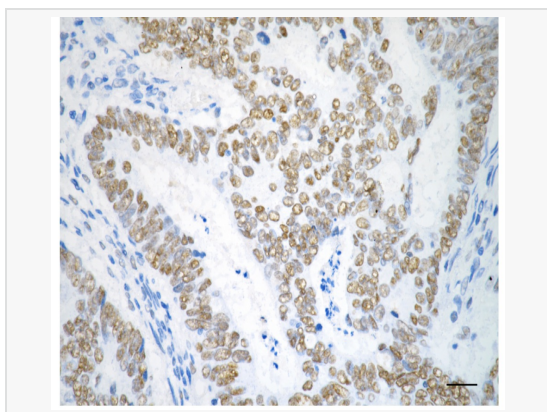
Validation of Checkpoint kinase 2 knockdown using flow cytometry. Wild-type (WT, Blue) and knockdown (KD, Green) HeLa cells were stained with Checkpoint kinase 2 antibody (R020839, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of Checkpoint kinase 2 expression in HAP-1 cells using Checkpoint kinase 2 antibody (R020839, 1:2,000). Green, isotype control; red, Checkpoint kinase 2.



Immunocytochemical staining of HAP1 cells with Checkpoint kinase 2 antibody (R020839, 1:1,000). Nuclei were stained blue with DAPI; Checkpoint kinase 2 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 μ m.



Immunohistochemistry was performed on paraffin-embedded human sigmoid colon carcinoma using checkpoint kinase 2 antibody (R020839, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40 \times objective). Scale bar: 25 μ m.