

## [KD Validated] Anti-CHEK2 Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

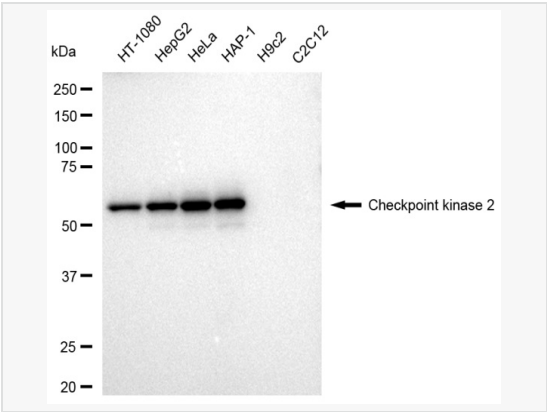
Catalog # R021684

### Product Information

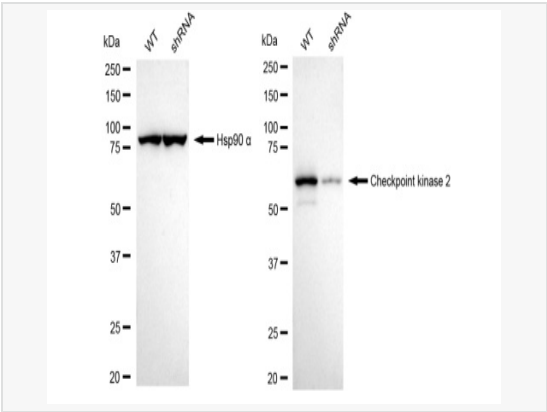
|             |                                                                                                                                   |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Application | WB, FC, IF (Cell)/ICC                                                                                                             |
| Reactivity  | Human                                                                                                                             |
| Dilution    | WB 1:1,000~1:5,000; FC 1:200~1:2,000; IF 1:100~1:1,000                                                                            |
| Host        | Rabbit                                                                                                                            |
| Clonality   | Monoclonal                                                                                                                        |
| Clone No.   | 31B27N90                                                                                                                          |
| Isotype     | IgG                                                                                                                               |
| Label       | Unconjugated                                                                                                                      |
| Immunogen   | A synthesized peptide derived from 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 [31B27N90] is for research use only and not for use in diagnostic or therapeutic procedures. |

### Protein Information

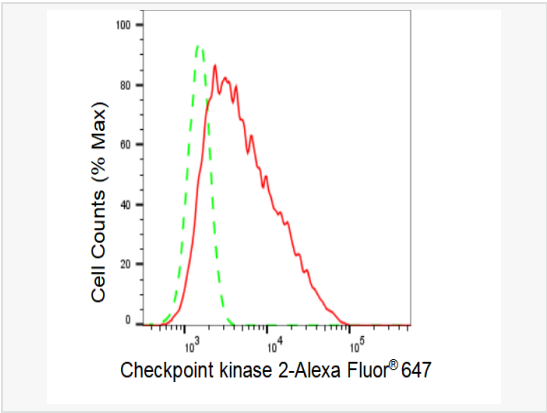
|               |                                                                                                                                                                                                                                                                                                                       |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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: 62 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. |



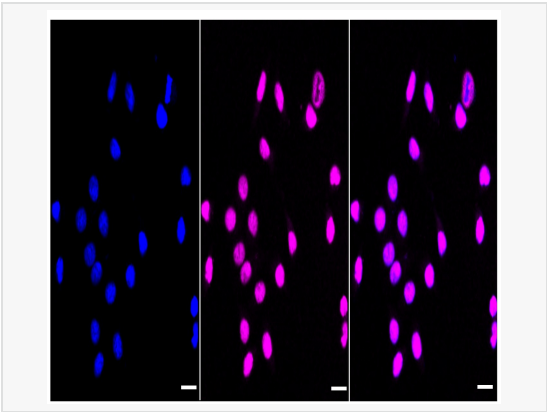
Western blotting analysis using Checkpoint kinase 2 antibody (R021684). Total cell lysates (30  $\mu$ g) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Checkpoint kinase 2 antibody (R021684, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



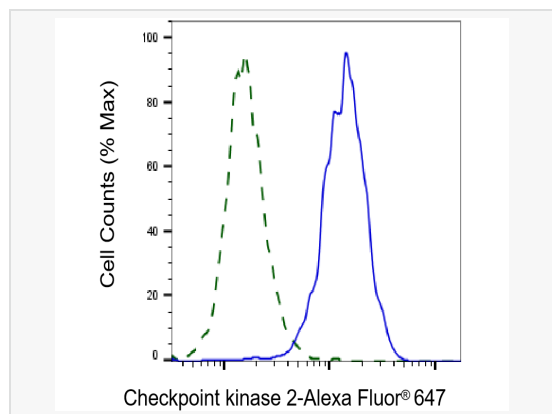
Western blotting analysis using Checkpoint kinase 2 antibody (R021684). Checkpoint kinase 2 expression in wild type (WT) and Checkpoint kinase 2 shRNA knockdown (KD) HeLa cells with 30  $\mu$ g of total cell lysates. Hsp90  $\alpha$  serves as a loading control. The blot was incubated with Checkpoint kinase 2 antibody (R021684, 1:20,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



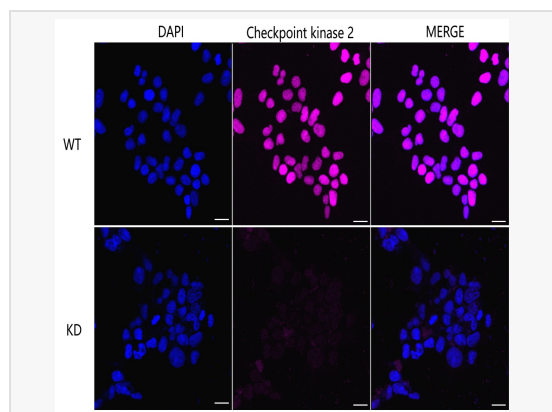
Flow cytometric analysis of Checkpoint kinase 2 expression in HepG2 cells using Checkpoint kinase 2 antibody (R021684, 1:2,000). Green, isotype control; red, Checkpoint kinase 2.



Immunocytochemical staining of HT-1080 cells with Checkpoint kinase 2 antibody (R021684, 1:1,000). Nuclei were stained blue with DAPI; Checkpoint kinase 2 was stained magenta with Alexa Fluor<sup>®</sup> 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20  $\mu$ m.



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 (R021684, 1:2,000) and analyzed using BD flow cytometer.



Immunocytochemical staining of HeLa cells using Checkpoint kinase 2 antibody (R021684, 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  $\mu$ m.