# [KD Validated] Anti-CASP3 Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

Catalog # R021802

## Product Information

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| Application | WB, FC, IF (Cell)/ICC, IHC-P/IF (Tissue-P) |
| Reactivity | Human, Mouse, Rat |
| 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. | 63A15L20 |
| Isotype | IgG |
| Label | Unconjugated |
| Immunogen | A synthesized peptide derived from human caspase 3 |
| 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-CASP3 Rabbit mAb [63A15L20] is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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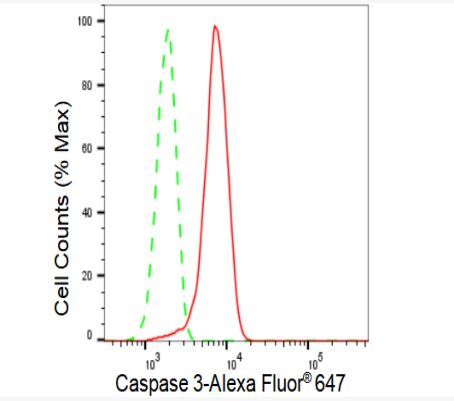
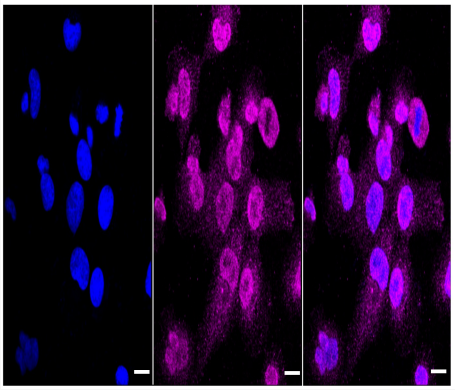
|---|---|
| Synonyms | CASP3; Caspase 3; CPP32; Apopain; CPP32B; Caspase 3, Apoptosis-Related Cysteine Peptidase; Caspase 3, Apoptosis-Related Cysteine Protease; SREBP Cleavage Activity 1; Cysteine Protease CPP32; Protein Yama 3; EC 3.4.22.56; Caspase-3; CASP-3; CPP-32; SCA-1; PARP Cleavage Protease; Procaspase3; EC 3.4.22; APOPAIN; Yama; YAMA. |
| Calculated MW | Calculated MW: 32 kDa, Observed MW: 32 kDa |
| Uniprot ID | P42574 |
| Gene ID | 836 |
| Background | Sequential activation of caspases plays a central role in the execution-phase of cell apoptosis. Caspases exist as inactive proenzymes which undergo proteolytic processing at conserved aspartic residues to produce 2 subunits, large and small, that dimerize to form the active enzyme. |

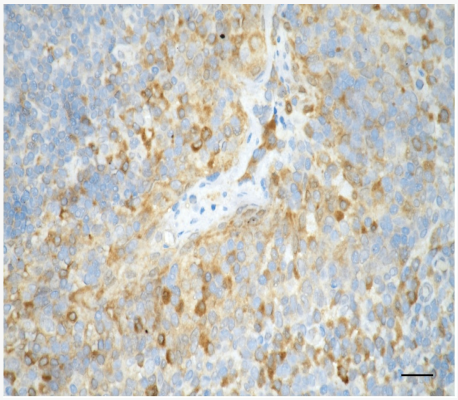
## Validation Images



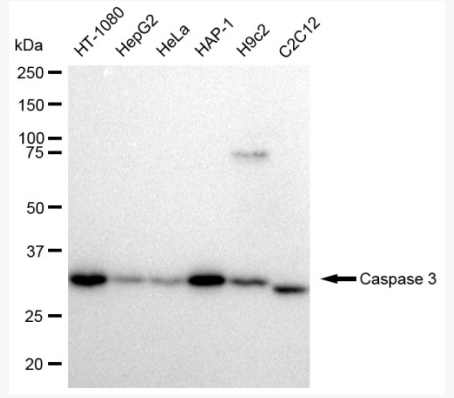

Flow cytometric analysis of Caspase 3 expression in HT-1080 cells using Caspase 3 antibody (R021802, 1:2,000). Green, isotype control; red, Caspase 3.



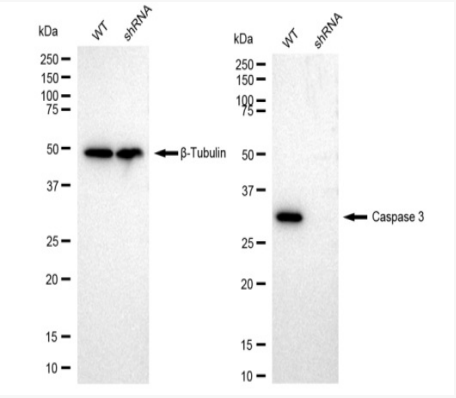
Immunocytochemical staining of HT-1080 cells with Caspase 3 antibody (R021802, 1:1,000). Nuclei were stained blue with DAPI; Caspase 3 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.



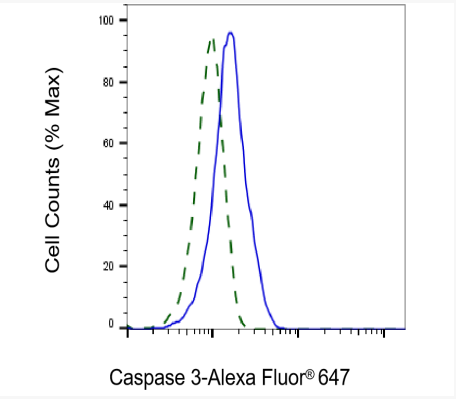
Immunohistochemistry was performed on paraffin-embedded human tonsillitis using caspase 3 antibody (R021802, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



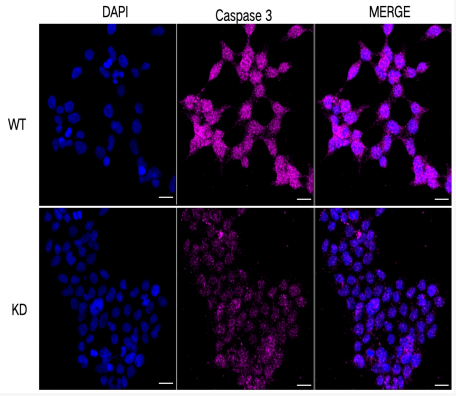

Western blotting analysis using Caspase 3 antibody (R021802). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Caspase 3 antibody (R021802, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.




Western blotting analysis using Caspase 3 antibody (R021802). Caspase 3 expression in wild type (WT) and caspase 3 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with Caspase 3 antibody (R021802, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.




Validation of Caspase 3 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Caspase 3 antibody (R021802, 1:2,000) and analyzed using CytoFLEX.




Immunocytochemical staining of HeLa cells using Caspase 3 antibody (R021802, 1:1,000), Top panel: wild-type (WT); Bottom panal: Caspase 3 shRNA knockdown (KD). Nuclei were stained blue with DAPI; Caspase 3 was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm.