

Product Name: KD-Validated Caspase 3 Recombinant Rabbit Monoclonal Antibody
Catalog #: KVAb01728

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:100-1:200
Molecular Weight	Calculated MW: 31.6kDa

Antigen Information

Gene Name	CASP3
Alternative Names	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
Gene ID	836.0
SwissProt ID	P42574
Immunogen	A synthesized peptide derived from human caspase 3

Background

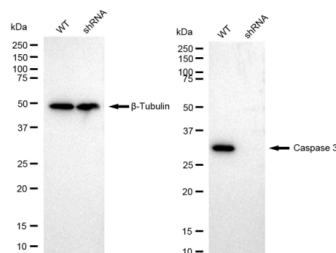
The protein encoded by this gene is a cysteine-aspartic acid protease that plays a central role in the execution-phase of cell

apoptosis. The encoded protein cleaves and inactivates poly(ADP-ribose) polymerase while it cleaves and activates sterol regulatory element binding proteins as well as caspases 6, 7, and 9. This protein itself is processed by caspases 8, 9, and 10. It is the predominant caspase involved in the cleavage of amyloid-beta 4A precursor protein, which is associated with neuronal death in Alzheimer's disease. [provided by RefSeq, Aug 2017]

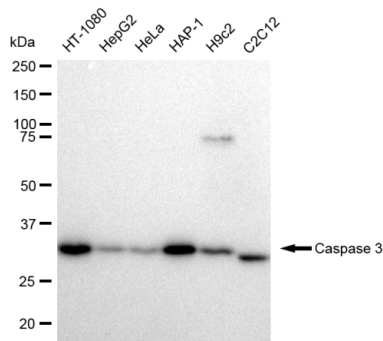
Research Area

Cell Biology,Cancer,Metabolism,Neuroscience

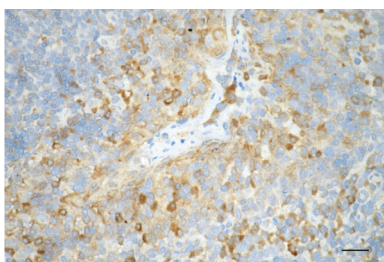
Image Data



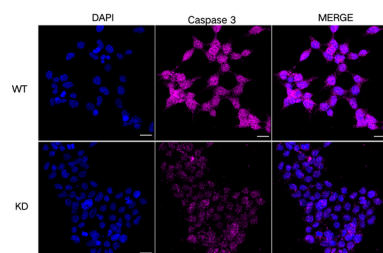
Western blotting analysis using Caspase 3 antibody (KVA01728). Caspase 3 expression in wild type (WT) and caspase 3 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with Caspase 3 antibody (KVA01728, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



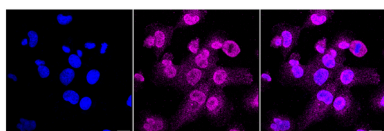
Western blotting analysis using Caspase 3 antibody (KVA01728). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Caspase 3 antibody (KVA01728, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



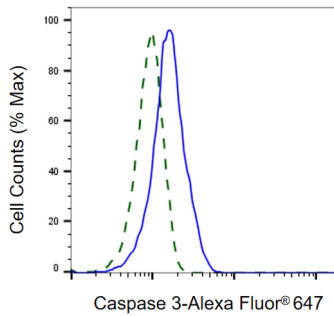
Immunohistochemistry was performed on paraffin-embedded human tonsillitis using caspase 3 antibody (KVA01728, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



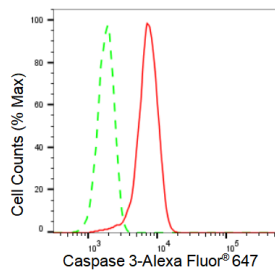
Immunocytochemical staining of HeLa cells using Caspase 3 antibody (KVA01728, 1:1,000), Top panel: wild-type (WT); Bottom panel: Caspase 3 shRNA knockdown (KD). Nuclei were stained blue with DAPI; Caspase 3 was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm.



Immunocytochemical staining of HT-1080 cells with Caspase 3 antibody (KVA01728, 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.



Validation of Caspase 3 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Caspase 3 antibody (KVA01728, 1:2,000) and analyzed using CytoFLEX.



Flow cytometric analysis of Caspase 3 expression in HT-1080 cells using Caspase 3 antibody (KVA01728, 1:2,000). Green, isotype control; red, Caspase 3.