

DATASHEET

Caspase 3 Rabbit Polyclonal Antibody

CAT. NO. APA06731

KEY FEATURES

Target	Caspase 3	Source / Host	Rabbit
Reactivity	Human, Mouse, Rat, Bovine, Dog, Monkey, Zebrafish	Clonality	Polyclonal
Applications	WB, IHC, IF/ICC	Conjugation	Unconjugated
Form / Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.	Storage	at-20°C

BACKGROUND

Thiol protease that acts as a major effector caspase involved in the execution phase of apoptosis . Following cleavage and activation by initiator caspases (CASP8, CASP9 and/or CASP10), mediates execution of apoptosis by catalyzing cleavage of many proteins . At the onset of apoptosis, it proteolytically cleaves poly(ADP-ribose) polymerase PARP1 at a '216-Asp-|-Gly-217' bond . Cleaves and activates sterol regulatory element binding proteins (SREBPs) between the basic helix-loop-helix leucine zipper domain and the membrane attachment domain . Cleaves and activates caspase-6, -7 and -9 (CASP6, CASP7 and CASP9, respectively) . Cleaves and inactivates interleukin-18 (IL18) . Involved in the cleavage of huntingtin . Triggers cell adhesion in sympathetic neurons through RET cleavage .

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IHC	1:100 - 1:200
IF/ICC	1:100 - 1:500

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

Description	Rabbit polyclonal antibody to Caspase 3
Specificity	Recognizes endogenous levels of Caspase 3 protein.
Antibody Type	Primary antibody
Immunogen	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Caspase 3. The exact sequence is proprietary.
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 31 kD; Observed: 35; 17 kD
Form/Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Alternative Names	CPP32; Caspase-3; CASP-3; Apopain; Cysteine protease CPP32; CPP-32; Protein Yama; SREBP cleavage activity 1; SCA-1
Gene Symbol	CASP3
Entrez Gene	836(Human); 12367(Mouse); 25402(Rat)
SwissProt	P42574(Human); P70677(Mouse); P55213(Rat)

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

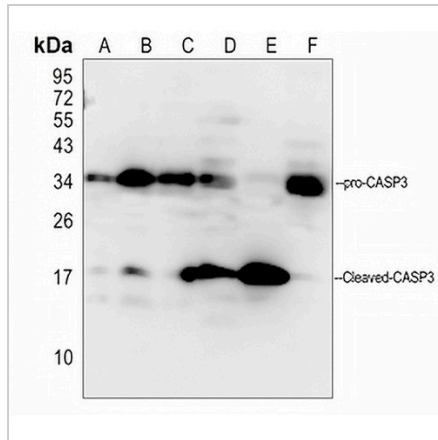
*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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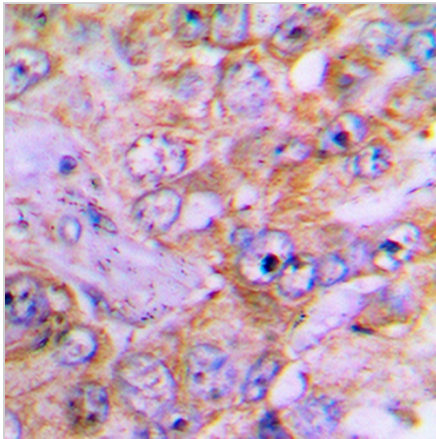
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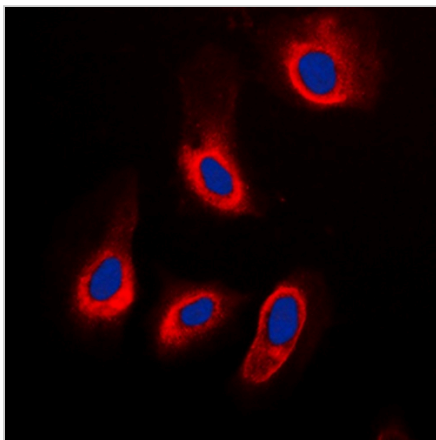
DATA



Western blot analysis of Caspase 3 expression in Hela (A), SGC7901 (B), EC9706 (C), mouse liver (D), mouse spleen (E), rat liver (F) whole cell lysates. (Predicted band size: 31 kD; Observed band size: 35; 17 kD)



Immunohistochemical analysis of Caspase 3 staining in human lung cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



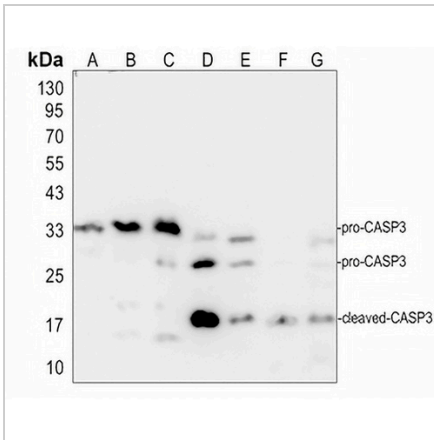
Immunofluorescent analysis of Caspase 3 staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

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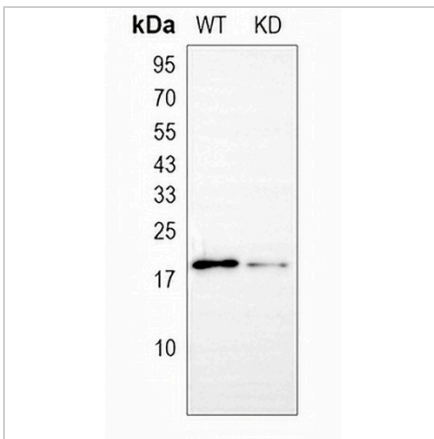
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DATA (CONTINUED)



Western blot analysis of Caspase 3 expression in HEK293T (A), HUT78 (B), MCF7 (C), mouse spleen (D), mouse brain (E), rat spleen (F), rat brain (G) whole cell lysates.



Western blot analysis of Caspase 3 expression in wild type (WT) and knockdown (KD) HeLa cell lysates.

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.