Anti-pro Caspase-7 Antibody [SD20-57] ET1612-28

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IF-Cell, IF-Tissue, IHC-P
Molecular Wt:	34 kDa
Clone number:	SD20-57
Description:	A unique family of Cysteine proteases has been described that differs in sequence, structure and substrate specificity from any previously described protease family. This family, Ced- 3/caspase-1, is comprised of caspase-1, caspase-2, caspase-3, caspase-4, caspase-6, caspase-7 (also designated Mch3, ICE-LAP3 or CMH-1), caspase-9 and caspase-10. Ced- 3/caspase-1 family members function as key components of the apoptotic machinery and act to destroy specific target proteins which are critical to cellular longevity. Poly(ADP-ribose) polymerase plays an integral role in surveying for DNA mutations and double strand breaks. Caspase-3, caspase-7 and caspase-9, but not caspase-1, have been shown to cleave the nuclear protein PARP into an apoptotic fragment. Caspase-6, but not caspase-3, has been shown to cleave the nuclear lamins which are critical to maintaining the integrity of the nuclear envelope and cellular morphology. Caspase-10 has been shown to activate caspase-3 and caspase-7 in response to apoptotic stimuli.
lmmunogen:	Synthetic peptide within Human Caspase 7 aa 1-50 / 303.
Positive control:	Hela, HepG2, human liver tissue, human kidney tissue,human lung lysates.
Subcellular location:	Cytoplasm.
Database links:	SwissProt: P55210 Human
Recommended Dilutions: WB IF-Cell IF-Tissue IHC-P	1:1,000-1:2,000 1:50-1:200 1:50-1:200 1:50-1:200
Storage Buffer:	1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.
Storage Instruction:	Store at +4 $^\circ\!C$ after thawing. Aliquot store at -20 $^\circ\!C$ or -80 $^\circ\!C$. Avoid repeated freeze / thaw cycles.
Purity:	Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

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Images



Fig1: Western blot analysis of pro Caspase-7 on human lung lysates with Rabbit anti-pro Caspase-7 antibody (ET1612-28) at 1/1000 dilution.

Lysates at 20 µg/Lane.

Predicted band size: 34 kDa Observed band size: 35 kDa

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1612-28) at 1/1000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:300,000 dilution was used for 1 hour at room temperature.

Fig2: ICC staining pro Caspase 7 in Hela cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



Fig3: ICC staining pro Caspase 7 in HepG2 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



Fig4: Immunohistochemical analysis of paraffin-embedded human liver tissue using anti-pro Caspase 7 antibody. Counter stained with hematoxylin.

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Fig5: Immunohistochemical analysis of paraffin-embedded human kidney tissue using anti-pro Caspase 7 antibody. Counter stained with hematoxylin.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

- 1. Wang, Z.H. et al. 2015. Cytotoxic effect of s-petasin and iso-s-petasin on the proliferation of human prostate cancer cells. Anticancer research. 35: 191-9.
- 2. Zhen, J. et al. 2014. AIM2 mediates inflammation-associated renal damage in hepatitis B virus-associated glomerulonephritis by regulating caspase-1, IL-1β, and IL-18. Mediators of inflammation. 2014: 190860.

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