Anti-pro Caspase-3 Antibody [SZ02-08]

ET1603-26

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse
Applications:	WB, IF-Tissue, IHC-P
Molecular Wt:	Predicted band size: 32 kDa
Clone number:	SZ02-08

Description: Caspase-3 is a caspase protein that interacts with caspase-8 and caspase-9. It is encoded by the CASP3 gene. CASP3 orthologs have been identified in numerous mammals for which complete genome data are available. Unique orthologs are also present in birds, lizards, lissamphibians, and teleosts. Caspase-3 shares many of the typical characteristics common to all currently-known caspases. For example, its active site contains a cysteine residue (Cys-163) and histidine residue (His-121) that stabilize the peptide bond cleavage of a protein sequence to the carboxy-terminal side of an aspartic acid when it is part of a particular 4-amino acid sequence. This specificity allows caspases to be incredibly selective, with a 20,000-fold preference for aspartic acid over glutamic acid. A key feature of caspases in the cell is that they are present as zymogens, termed procaspases, which are inactive until a biochemical change causes their activation. Each procaspase has an N-terminal large subunit of about 20 kDa followed by a smaller subunit of about 10 kDa, called p20 and p10, respectively.

Immunogen: Synthetic peptide within Human pro Caspase-3 aa 18-67 / 277.

Positive control: HCT 116 cell lysate, Jurkat cell lysate, human tonsil tissue.

Subcellular location: Cytoplasm, Nucleus.

Database links: SwissProt: P42574 Human | P70677 Mouse

Recommended Dilutions:

WB	1:1,000-1:2,000
IF-Tissue	1:100-1:500
IHC-P	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℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

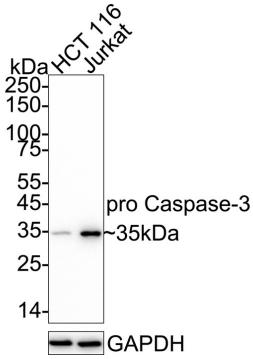

Fig1: Western blot analysis of pro Caspase-3 on different lysates with Rabbit anti-pro Caspase-3 antibody (ET1603-26) at 1/1,000 dilution.

Lane 1: HCT 116 cell lysate
Lane 2: Jurkat cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 32 kDa
Observed band size: 35 kDa

Exposure time: 3 minutes; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1603-26) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

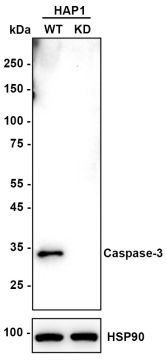

Fig2: Western blot analysis of pro Caspase-3 on different lysates with Rabbit anti-pro Caspase-3 antibody (ET1603-26) at 1/2,000 dilution.

Lane 1: HAP1-parental cell lysate
Lane 2: HAP1-pro Caspase-3 KD cell lysate

Lysates/proteins at 10 µg/Lane.

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

Exposure time: 180 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1603-26) at 1/2,000 dilution was used in K1803 at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

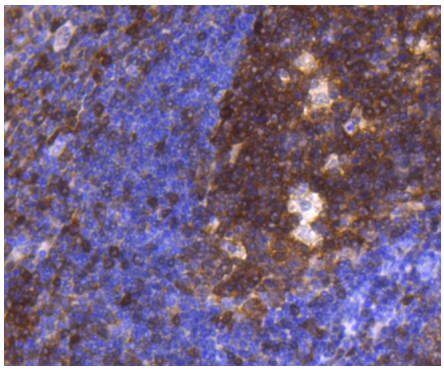

Fig3: Immunohistochemical analysis of paraffin-embedded human tonsil tissue using anti-pro Caspase-3 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes.The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1603-26, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

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

Background References

1. Abdi J et al. Stimulation of Toll-like receptor-1/2 combined with Velcade increases cytotoxicity to human multiple myeloma cells. Blood Cancer J 3:e119 (2013).
2. Nilsonne G et al. Phenotype-dependent apoptosis signalling in mesothelioma cells after selenite exposure. J Exp Clin Cancer Res 28:92 (2009).