

# cleaved caspase-3 p11 (h176)-R: sc-22171-R

## BACKGROUND

Caspase-3, also known as apopain, SCA-1, Yama and CPP32, is an aspartate-specific cysteine protease that belongs to the ICE subfamily of caspases. Caspase-3 is expressed in cells as an inactive precursor from which the p17 and p11 subunits of the mature caspase-3 are proteolytically generated during apoptosis. The caspase-3 precursor is first cleaved at Asp-175-Ser-176 to produce the p11 subunit and the p20 peptide. Subsequently, the p20 peptide is cleaved at Asp-28-Ser-29 to generate the mature p17 subunit. The active caspase-3 enzyme is a heterodimer composed of two p17 and two p11 subunits. At the onset of apoptosis, caspase-3 proteolytically cleaves PARP at a Asp-216-Gly-217 bond. During the execution of the apoptotic cascade, activated caspase-3 releases SREBP from the membrane of the ER in a proteolytic reaction that is distinct from their normal sterol-dependent activation. Caspase-3 cleaves and activates SREBPs between the basic helix-loop-helix leucine zipper domain and the membrane attachment domain. Caspase-3 also cleaves and activates caspase-6, -7 and -9. The human caspase-3 gene encodes a cytoplasmic protein that is highly expressed in lung, spleen, heart, liver, kidney and cells of the immune system.

## CHROMOSOMAL LOCATION

Genetic locus: CASP3 (human) mapping to 4q35.1.

## SOURCE

cleaved caspase-3 p11 (h176)-R is a rabbit polyclonal antibody raised against a short amino acid sequence containing the neoepitope at Ser 176 of caspase-3 p11 of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-22171 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

cleaved caspase-3 p11 (h176)-R is recommended for detection of the p11 subunit of caspase-3 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with full length caspase-3.

Suitable for use as control antibody for caspase-3 siRNA (h): sc-29237, caspase-3 shRNA Plasmid (h): sc-29237-SH and caspase-3 shRNA (h) Lentiviral Particles: sc-29237-V.

Molecular Weight of procaspase-3: 32 kDa.

Molecular Weight of caspase-3 subunits: 11/17/20 kDa.

Positive Controls: MOLT-4 cell lysate: sc-2233 or CCRF-CEM cell lysate: sc-2225.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## SELECT PRODUCT CITATIONS

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## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.