BACKGROUND
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 composed of caspase-1, caspase-2, caspase-3, caspase-4, caspase-6 and caspase-7 (also designated Mch3, ICE-LAP3 or CMH-1), caspase-9, caspase-10, caspase-14, and caspase-5/caspase-12. 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. Caspase-5 (also designated TY or ICE relIII) can cleave its own precursor, an activity that requires the cysteine 245 residue. The mouse homolog of caspase-5 is designated caspase-12. Frameshift mutations in caspase-5 have been identified in MMP tumors of the endometrium, colon and stomach, indicating that caspase-5 may be a new target gene in the microsatellite mutator pathway for cancer.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: CASP12 (human) mapping to 11q22.3.

SOURCE
caspase-12 (H-6) is a mouse monoclonal antibody raised against amino acids 38-124 mapping near the N-terminus of caspase-12 of human origin.

PRODUCT
Each vial contains 200 μg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.
caspase-12 (H-6) is available conjugated to agarose (sc-515103 AC), 500 μg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515103 HRP), 200 μg/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-515103 PE), fluorescein (sc-515103 FITC), Alexa Fluor® 488 (sc-515103 AF488) or Alexa Fluor® 647 (sc-515103 AF647), 200 μg/ml, for IF, IHC(P) and FCM.

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APPLICATIONS
caspase-12 (H-6) is recommended for detection of caspase-12 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 μg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for caspase-12 siRNA (h): sc-72797, caspase-12 shRNA Plasmid (h): sc-72797-SH and caspase-12 shRNA (h) Lentiviral Particles: sc-72797-V.

Molecular Weight of caspase-12: 50 KDa.

Positive Controls: human heart extract: sc-363763.

RECOMMENDED SUPPORT REAGENTS
To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz ® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG BP-FITC: sc-516140 or m-IgG BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz ® Mounting Medium: sc-24941 or UltraCruz ® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohisto-mount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA
caspase-12 (H-6): sc-515103. Western blot analysis of procaspase-12 expression in human heart tissue extract.
caspase-12 (H-6): sc-515103. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A); Immunoperoxidase staining of formalin-fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes (B).

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

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