

# caspase-14 p20 (M-21): sc-9641

## 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, termed 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 and caspase-14. 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-3, caspase-7 and caspase-9, but not caspase-1, have been shown to cleave the nuclear protein PARP into an apoptotic fragment. caspase-14, also designated MICE (for mini-ICE), is highly expressed in embryonic tissues but appears to be absent from adult tissues. Procaspace-14 can be processed *in vitro* by caspase-8 and caspase-10 but not by other caspases.

## REFERENCES

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- Fernandes-Alnemri, T.F., et al. 1996. *In vitro* activation of CPP32 and Mch3 by Mch4, a novel human apoptotic cysteine protease containing two FADD-like domains. *Proc. Natl. Acad. Sci. USA* 93: 7464-7469.
- Casciola-Rosen, L., et al. 1996. Apopain/ CPP32 cleaves proteins that are essential for cellular repair: a fundamental principle of apoptotic death. *J. Exp. Med.* 183: 1957-1964.
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- Ahmad, M., et al. 1998. Identification and characterization of murine caspase-14, a new member of the caspase family. *Cancer Res.* 58: 5201-5205.
- Van de Craen, M., et al. 1998. Identification of a new caspase homologue: caspase-14. *Cell Death Differ.* 5: 838-846.

## CHROMOSOMAL LOCATION

Genetic locus: CASP14 (human) mapping to 19p13.12; Casp14 (mouse) mapping to 10 C1.

## SOURCE

caspase-14 p20 (M-21) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of caspase-14 p20 of mouse origin.

## STORAGE

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

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-9641 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

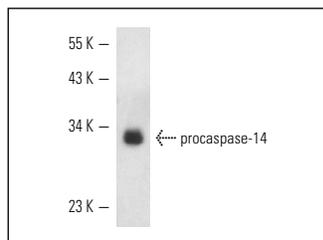
caspase-14 p20 (M-21) is recommended for detection of p20 subunit and precursor of caspase-14 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

caspase-14 p20 (M-21) is also recommended for detection of p20 subunit and precursor of caspase-14 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for caspase-14 siRNA (h): sc-37364, caspase-14 siRNA (m): sc-37365, caspase-14 shRNA Plasmid (h): sc-37364-SH, caspase-14 shRNA Plasmid (m): sc-37365-SH, caspase-14 shRNA (h) Lentiviral Particles: sc-37364-V and caspase-14 shRNA (m) Lentiviral Particles: sc-37365-V.

Molecular Weight of caspase-14 p20: 30/18/11 kDa.

## DATA



caspase-14 p20 (M-21): sc-9641. Western blot analysis of human recombinant procaspase-14.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **caspase-14 (D-10): sc-48336** or **caspase-14 (C-12): sc-48395**, our highly recommended monoclonal alternatives to caspase-14 p20 (M-21).w