

caspase-4/5 p10 (H-60): sc-28229

BACKGROUND

Caspases are cysteine proteases which play important roles in the activation of cytokines and in apoptosis. The ICE subfamily of caspases comprises peptides closely related to caspase-1, which promotes maturation of interleukin 1 β (IL-1 β) and interleukin-18 (IL-18) by proteolytic cleavage of precursor forms to generate biologically active peptides. Both caspase-4 and caspase-5 are members of the caspase-1 subfamily, and are more closely related to each other than to other homologues. Caspase-5 (also designated ICErel-III, TY, ICH-3 and caspase-12 in mouse), can cleave its own precursor, an activity that requires the Cysteine 245 residue. The human caspase-5 gene maps to chromosome 11q22.2-q22.3 and encodes a protein whose expression is barely detectable in most tissues except brain. Caspase-4 cleaves caspase-1 and has two subunits derived from the precursor sequence by an autocatalytic mechanism or by cleavage by caspase-8. Caspase-4 is widely expressed, with highest levels in spleen and lung, and it is not found in the brain.

REFERENCES

- Munday, N.A., et al. 1995. Molecular cloning and pro-apoptotic activity of ICErelIII and ICErelIII, members of the ICE/CED-3 family of cysteine proteases. *J. Biol. Chem.* 270: 15870-15876.
- Faucheu, C., et al. 1996. Identification of a cysteine protease closely related to interleukin-1 β -converting enzyme. *J. Biochem.* 236: 207-213.
- Cohen, G.M. 1997. Caspases: the executioners of apoptosis. *Biochem. J.* 326: 1-16.
- Van de Craen, M., et al. 1997. Characterization of seven murine caspase family members. *FEBS Lett.* 403: 61-69.
- Schwartz, S. Jr., et al. 1999. Frameshift mutations at mononucleotide repeats in caspase-5 and other target genes in endometrial and gastrointestinal cancer of the microsatellite mutator phenotype. *Cancer Res.* 59: 2995-3002.
- Online Mendelian Inheritance in Man, OMIM[™]. 1999. Johns Hopkins University, Baltimore, MD. MIM Number: 602665. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Taylor, S., et al. 2000. Cloning and sequencing of feline and canine ICE-related cDNAs encoding hybrid caspase-1/caspase-13-like propeptides. *DNA Seq.* 10: 387-394.

SOURCE

caspase-4/5 p10 (H-60) is a rabbit polyclonal antibody raised against amino acids 341-400 of caspase-5 of human origin.

PRODUCT

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

STORAGE

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

APPLICATIONS

caspase-4/5 p10 (H-60) is recommended for detection of caspase-4 and caspase-5 p10 subunit of human origin and, to a lesser extent, caspase-1 and caspase-12 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Molecular Weight of procaspase-4/5: 50/48 kDa.

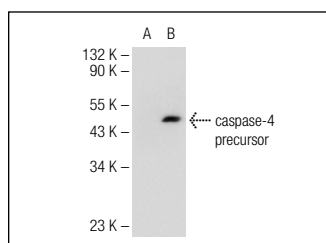
Molecular Weight of mature caspase-4/5 p10 subunit: 10 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or caspase-4 p20 (h2): 293T Lysate: sc-175856.

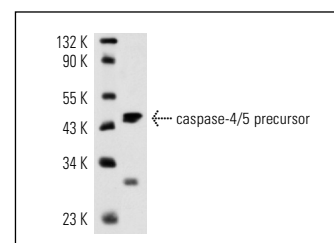
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

DATA



caspase-4/5 p10 (H-60): sc-28229. Western blot analysis of caspase-4 expression in non-transfected: sc-117752 (A) and human caspase-4 transfected: sc-175856 (B) 293T whole cell lysates.



caspase-4/5 p10 (H-60): sc-28229. Western blot analysis of caspase-4 and caspase-5 precursor expression in Jurkat whole cell lysate.

RESEARCH USE

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

MONOS
Satisfaction
Guaranteed

Try **caspase-5 p20 (H-2): sc-393346**, our highly recommended monoclonal alternative to caspase-4/5 p10 (H-60).