

# caspase-8 p18 (C-20): sc-6136

## BACKGROUND

Initiator caspases, which include caspase-8, activate effector caspases by cleaving inactive forms of effector caspases. In the activation cascade responsible for apoptosis induced by TNFRSF1A and mediated by TNFRSF6/FAS, caspase-8 is the most upstream protease. Caspase-8 binds to adaptor molecule FADD, forming an aggregate referred to as death-inducing signaling complex (DISC), which activates caspase-8. The activated protein is released from the complex and further activates downstream apoptotic proteases. Caspase-8, which is a heterodimer consisting of two subunits (p18 and p10), is widely expressed, but is detected at highest levels in peripheral blood leukocytes (PBLs), thymus, liver and spleen. Defects in CASP8, the gene encoding for caspase-8, may cause CASP8D (caspase-8 deficiency disorder), which is characterized by splenomegaly and CD95-induced apoptosis of PBLs, may lead to immunodeficiency due to defects in T lymphocyte, NK cell and B lymphocyte activation.

## CHROMOSOMAL LOCATION

Genetic locus: CASP8 (human) mapping to 2q33.1.

## SOURCE

caspase-8 p18 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of caspase-8 p18 of human origin.

## 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-6136 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

caspase-8 p18 (C-20) is recommended for detection of p18 subunit and precursor of caspase-8 of 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), 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).

caspase-8 p18 (C-20) is also recommended for detection of p18 subunit and precursor of caspase-8 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for caspase-8 siRNA (h): sc-29930, caspase-8 shRNA Plasmid (h): sc-29930-SH and caspase-8 shRNA (h) Lentiviral Particles: sc-29930-V.

Molecular Weight of caspase-8 precursor: 55 kDa.

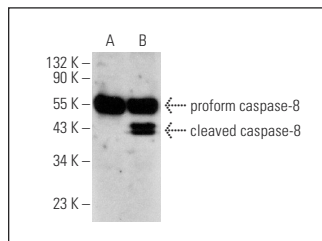
Molecular Weight of caspase-8 p18 subunit: 18 kDa.

Molecular Weight of caspase-8 p10 subunit: 10 kDa.

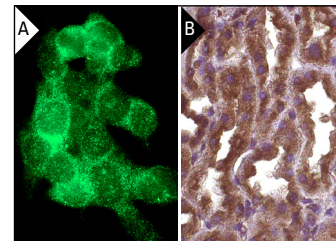
## STORAGE

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

## DATA



caspase-8 p18 (C-20): sc-6136. Western blot analysis of cleaved caspase-8 p18 expression in untreated (A) and 1-β-D-Arabinofuranosylcytosine (sc-201628) treated (B) Jurkat whole cell lysates. Note cleavage of caspase-8 p18 expression in lane B.



caspase-8 p20 (C-20): sc-6136. Immunofluorescence staining of methanol-fixed SW-480 cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules (B).

## SELECT PRODUCT CITATIONS

- Kim, K., et al. 2000. Molecular determinants of response to TRAIL in killing of normal and cancer cells. *Clin. Cancer Res.* 6: 335-346.
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- Liao, M.H., et al. 2011. Anti-human hepatoma Hep-G2 proliferative, apoptotic and antimutagenic activity of tagitinin C from *Tithonia diversifolia* leaves. *J. Nat. Med.* 67: 98-106.
- Stolpmann, K., et al. 2012. Activation of the aryl hydrocarbon receptor sensitises human keratinocytes for CD95L- and TRAIL-induced apoptosis. *Cell Death Dis.* 3: e388.
- Wu, Y.H., et al. 2012. Removal of syndecan-1 promotes TRAIL-induced apoptosis in myeloma cells. *J. Immunol.* 188: 2914-2921.
- Feoktistova, M., et al. 2012. Pick your poison: the ripoptosome, a cell death platform regulating apoptosis and necroptosis. *Cell Cycle* 11: 460-467.
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## RESEARCH USE

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