

caspase-8 (2.1.24): sc-81657

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; Casp8 (mouse) mapping to 1 C1.3.

SOURCE

caspase-8 (2.1.24) is a mouse monoclonal antibody raised against full-length recombinant caspase-8 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

caspase-8 (2.1.24) is recommended for detection of caspase-8 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for caspase-8 siRNA (h): sc-29930, caspase-8 siRNA (m): sc-37226, caspase-8 shRNA Plasmid (h): sc-29930-SH, caspase-8 shRNA Plasmid (m): sc-37226-SH, caspase-8 shRNA (h) Lentiviral Particles: sc-29930-V and caspase-8 shRNA (m) Lentiviral Particles: sc-37226-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.

Positive Controls: Jurkat whole cell lysate: sc-2204, HL-60 whole cell lysate: sc-2209 or NCI-H929 whole cell lysate: sc-364786.

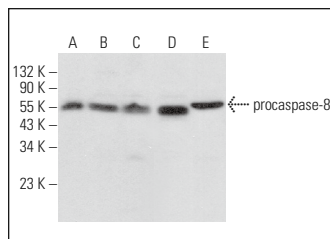
STORAGE

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

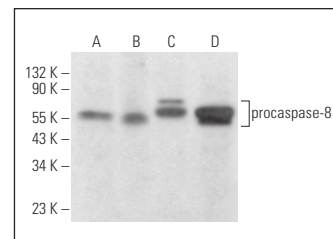
RESEARCH USE

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

DATA



caspase-8 (2.1.24): sc-81657. Western blot analysis of procaspase-8 expression in Jurkat (A), CCRF-CEM (B), HL-60 (C), SUP-T1 (D) and TK-1 (E) whole cell lysates.



caspase-8 (2.1.24): sc-81657. Western blot analysis of procaspase-8 expression in Jurkat (A), MOLT-4 (B), HeLa (C) and NCI-H929 (D) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Ibrahim, M.Y., et al. 2014. α -Mangostin from *Cratoxylum arborescens* demonstrates apoptogenesis in MCF7 with regulation of NF κ B and Hsp70 protein modulation *in vitro*, and tumor reduction *in vivo*. Drug Des. Devel. Ther. 8: 1629-1647.
2. Ibrahim, M.Y., et al. 2014. Involvement of NF κ B and HSP70 signaling pathways in the apoptosis of MDA-MB-231 cells induced by a prenylated xanthone compound, α -mangostin, from *Cratoxylum arborescens*. Drug Des. Devel. Ther. 8: 2193-2211.
3. Suo, H., et al. 2015. Induction of apoptosis in HCT-116 colon cancer cells by polysaccharide of *Larimichthys crocea* swim bladder. Oncol. Lett. 9: 972-978.
4. Gravina, G.L., et al. 2016. c-Myc sustains transformed phenotype and promotes radioresistance of embryonal rhabdomyosarcoma cell lines. Radiat. Res. 185: 411-422.
5. Iampietro, M., et al. 2017. Ebola virus glycoprotein directly triggers T lymphocyte death despite of the lack of infection. PLoS Pathog. 13: e1006397.
6. Hu, P.S., et al. 2022. Protective effects of γ -mangostin on hydrogen peroxide-induced cytotoxicity in human retinal pigment epithelial cells. In Vivo 36: 1676-1683.
7. Restivo, I., et al. 2023. A mixture of dietary plant sterols at nutritional relevant serum concentration inhibits extrinsic pathway of eryptosis induced by cigarette smoke extract. Int. J. Mol. Sci. 24: 1264.
8. Krishnaswamy, K., et al. 2024. Apocynin exerts neuroprotective effects in fumonisins b1-induced neurotoxicity via attenuation of oxidative stress and apoptosis in an animal model. J. Food Sci. 89: 1280-1293.



See **caspase-8 (8CSP03): sc-56070** for caspase-8 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.