**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 (8CSP03) is a mouse monoclonal antibody raised against full-length recombinant caspase-8 of human origin.

**PRODUCT**

Each vial contains 100 µg IgG, kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

caspase-8 (8CSP03) is available conjugated to agarose (sc-56070 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-56070 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-56070 PE), fluorescein (sc-56070 FITC), Alexa Fluor® 488 (sc-56070 AF488) or Alexa Fluor® 647 (sc-56070 AF647), 200 µg/ml, for IF, IHC(P) and FCM.

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**APPLICATIONS**

caspase-8 (8CSP03) is recommended for detection 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 in 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-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.

Positive Controls: Jurkat whole cell lysate: sc-2204, HeLa whole cell lysate: sc-2200 or MOLT-4 cell lysate: sc-2233.

**STORAGE**

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

**DATA**

[Western blot analysis images of caspase-8 expression in different cell lines]

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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