

# caspase-8 p18 (D-8): sc-5263

## 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 p18 (D-8) is a mouse monoclonal antibody raised against a recombinant protein corresponding to amino acids 217-350 mapping within the p18 subunit of caspase-8 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

caspase-8 p18 (D-8) is available conjugated to either Alexa Fluor® 546 (sc-5263 AF546) or Alexa Fluor® 594 (sc-5263 AF594), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-5263 AF680) or Alexa Fluor® 790 (sc-5263 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

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

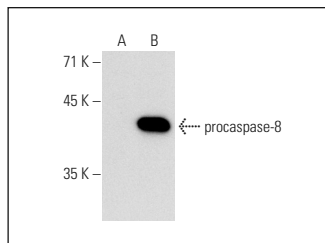
Molecular Weight of caspase-8 precursor: 55 kDa.

Molecular Weight of caspase-8 p18/p10 subunits: 18/10 kDa.

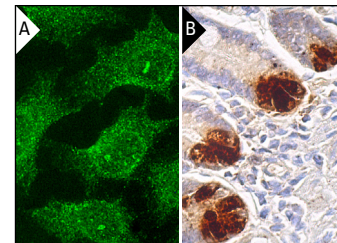
## STORAGE

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

## DATA



caspase-8 (D-8): sc-5263. Western blot analysis of procaspase-8 expression in non-transfected: sc-117752 (A) and human caspase-8 transfected: sc-114794 (B) 293T whole cell lysates.



caspase-8 p18 (D-8): sc-5263. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing cytoplasmic staining of Paneth cells (B).

## SELECT PRODUCT CITATIONS

- Beer, R., et al. 2001. Temporal and spatial profile of caspase-8 expression and proteolysis after experimental traumatic brain injury. *J. Neurochem.* 78: 862-873.
- Gomes, I.M., et al. 2018. Knockdown of STEAP1 inhibits cell growth and induces apoptosis in LNCaP prostate cancer cells counteracting the effect of androgens. *Med. Oncol.* 35: 40.
- Tong, C., et al. 2018. Shock waves increase pulmonary vascular leakage, inflammation, oxidative stress, and apoptosis in a mouse model. *Exp. Biol. Med.* 243: 934-944.
- Duarte-Silva, E., et al. 2018. Sildenafil ameliorates EAE by decreasing apoptosis in the spinal cord of C57BL/6 mice. *J. Neuroimmunol.* 321: 125-137.
- Xiao, M., et al. 2018. Deoxyphyllotoxin induces cell cycle arrest and apoptosis in human cholangiocarcinoma cells. *Oncol. Lett.* 16: 3177-3182.
- Vukelic, I., et al. 2018. Chlorogenic acid ameliorates experimental colitis in mice by suppressing signaling pathways involved in inflammatory response and apoptosis. *Food Chem. Toxicol.* 121: 140-150.
- Yesil, S., et al. 2018. Exenatide reduces oxidative stress and cell death in testis in iron overload rat model. *Exp. Ther. Med.* 16: 4349-4356.
- Fan, L., et al. 2018. Upregulation of miR-185 promotes apoptosis of the human gastric cancer cell line MGC803. *Mol. Med. Rep.* 17: 3115-3122.
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## RESEARCH USE

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