SANTA CRUZ BIOTECHNOLOGY, INC.

Taspase 1 (D-6): sc-514677

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Taspase 1, also known as TASP1 or C20orf13, is a 420 amino acid endopeptidase which cleaves specific substrates following aspartate residues and is required for MLL (myeloid/lymphoid or mixed-lineage leukemia) processing and, ultimately, correct expression of the Hox A gene cluster. After translation, Taspase 1 is subject to autoproteolytic processing which results in the creation of two subunits, designated α and β, which reassemble into a multimeric structure and are required for proper Taspase 1 activity. The gene encoding Taspase 1 maps to human chromosome 20. Comprising approximately 2% of the human genome, chromosome 20 contains nearly 63 million bases that encode over 600 genes, some of which are associated with Creutzfeldt-Jakob disease, amyotrophic lateral sclerosis, spinal muscular atrophy, RING chromosome 20 epilepsy syndrome and Alagille syndrome.

REFERENCES

1. Hsieh, J.J., et al. 2003. Taspase 1: a threonine aspartase required for cleavage of MLL and proper HOX gene expression. Cell 115: 293-303.
2. Hsieh, J.J., et al. 2003. Proteolytic cleavage of MLL generates a complex of N- and C-terminal fragments that confers protein stability and subnuclear localization. Mol. Cell. Biol. 23: 186-194.
3. Popovic, R. and Zeleznik-Le, N.J. 2005. MLL: how complex does it get? J. Cell. Biochem. 95: 234-242.
4. Khan, J.A., et al. 2005. Crystal structure of human Taspase1, a crucial protease regulating the function of MLL. Structure 13: 1443-1452.
5. Zhou, H., et al. 2006. Uncleaved TFIIA is a substrate for Taspase 1 and active in transcription. Mol. Cell. Biol. 26: 2728-2735.

CHROMOSOMAL LOCATION

Genetic locus: TASP1 (human) mapping to 20p12.1; Tasp1 (mouse) mapping to 2 F3.

SOURCE

Taspase 1 (D-6) is a mouse monoclonal antibody raised against amino acids 289-420 mapping at the C-terminus of Taspase 1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Taspase 1 (D-6) is available conjugated to agarose (sc-514677 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-514677 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514677 PE), fluorescein (sc-514677 FITC), Alexa Fluor® 488 (sc-514677 AF488), Alexa Fluor® 546 (sc-514677 AF546), Alexa Fluor® 594 (sc-514677 AF594) or Alexa Fluor® 647 (sc-514677 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514677 AF680) or Alexa Fluor® 790 (sc-514677 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

Taspase 1 (D-6) is recommended for detection of Taspase 1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Taspase 1 siRNA (h): sc-76632, Taspase 1 siRNA (m): sc-154081, Taspase 1 shRNA Plasmid (h): sc-76632-SH, Taspase 1 shRNA Plasmid (m): sc-154081-SH, Taspase 1 shRNA (h) Lentiviral Particles: sc-76632-V and Taspase 1 shRNA (m) Lentiviral Particles: sc-154081-V.

Molecular Weight of Taspase 1 α fragment: 28 kDa.

Molecular Weight of Taspase 1 β fragment: 22 kDa.

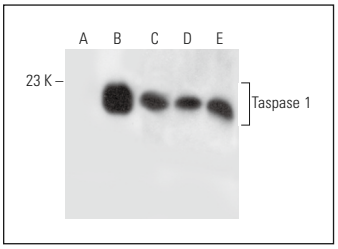
Molecular Weight of Taspase 1 precursor: 45 kDa.

Positive Controls: Taspase 1 (m2): 293T Lysate: sc-127633, Hep G2 cell lysate: sc-2227 or HL-60 whole cell lysate: sc-2209.

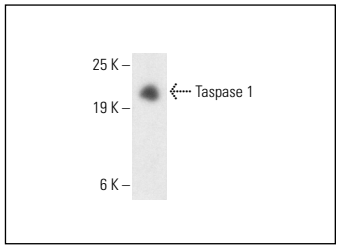
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Taspase 1 (D-6): sc-514677. Western blot analysis of Taspase 1 expression in non-transfected 293T: sc-117752 (**A**), mouse Taspase 1 transfected 293T: sc-127633 (**B**), HeLa (**C**), HL-60 (**D**) and Hep G2 (**E**) whole cell lysates.



Taspase 1 (D-6): sc-514677. Western blot analysis of Taspase 1 expression in MCF7 whole cell lysate. Detection reagent used: m-IgG_1 BP-HRP: sc-525408.

STORAGE

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