SANTA CRUZ BIOTECHNOLOGY, INC.

# Taspase 1 (G-17): sc-85946

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*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 HoxA gene cluster. After translation, Taspase 1 is subject to autoproteolytic processing which results in the creation of two subunits, designated $\alpha$ and $\beta$, 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


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2. Hsieh, J.J., Ernst, P., Erdjument-Bromage, H., Tempst, P. and Korsmeyer, S.J. 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.
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4. Khan, J.A., Dunn, B.M. and Tong, L. 2005. Crystal structure of human Taspase 1, a crucial protease regulating the function of MLL. Structure 13: 1443-1452.
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## CHROMOSOMAL LOCATION

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

## SOURCE

Taspase 1 (G-17) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of Taspase 1 of human origin.

## STORAGE

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

## PRODUCT

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

Blocking peptide available for competition studies, sc-85946 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Taspase 1 (G-17) is recommended for detection of Taspase 1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Taspase 1 (G-17) is also recommended for detection of Taspase 1 in additional species, including equine, canine, bovine and porcine.

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 $\alpha$ fragment: 28 kDa.

Molecular Weight of Taspase 1 $\beta$ fragment: 22 kDa.

Molecular Weight of precursor Taspase 1: 45 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209 or mouse kidney extract: sc-2255.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## RESEARCH USE

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

## PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.