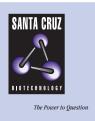
# SANTA CRUZ BIOTECHNOLOGY, INC.

# Calpain 13 (E-19): sc-54784



# BACKGROUND

Calpains are calcium-activated thiol proteases. They are heterodimers with one large subunit and one small subunit. The large subunit varies between family members and can be active without the small subunit. Calpains are involved in intracellular processing of proteins. Calpain 13, also called Sol H, is the most divergent caplain member. It is a homolog of Sol, an optic lobe gene product of *Drosophila*. Calpain 13 is a member of the non-EF-hand subfamily of calpains. It is composed of four domains and consists of 423 amino acid residues. Calpain 13 has a limited tissue distribution, but has been found in human brain, testis and lung tissue.

## REFERENCES

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- 3. Dear, T.N., et al. 2001. Identification and characterization of two novel calpain large subunit genes. Gene 274: 245-252.
- 4. Suzuki, K., et al. 2004. Structure, activation and biology of calpain. Diabetes 53: S12-S18.
- Gafni, J., et al. 2004. Inhibition of calpain cleavage of Huntingtin reduces toxicity: accumulation of calpain/caspase fragments in the nucleus. J. Biol. Chem. 279: 20211-20220.
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- Hou, S.T., et al. 2006. Calpain-cleaved collapsin response mediator protein-3 induces neuronal death after glutamate toxicity and cerebral ischemia. J. Neurosci. 26: 2241-2249.
- Saez, M.E., et al. 2006. The therapeutic potential of the calpain family: new aspects. Drug Discov. Today 11: 917-923.

# CHROMOSOMAL LOCATION

Genetic locus: Capn13 (mouse) mapping to 17 E2.

# SOURCE

Calpain 13 (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Calpain 13 of mouse origin.

# PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-54784 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

# **STORAGE**

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

#### APPLICATIONS

Calpain 13 (E-19) is recommended for detection of Calpain 13 of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 Calpain 13 siRNA (m): sc-62063, Calpain 13 shRNA Plasmid (m): sc-62063-SH and Calpain 13 shRNA (m) Lentiviral Particles: sc-62063-V.

Molecular Weight of Calpain 13: 76 kDa.

# **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluo-rescence: use donkey anti-goat IgG-FITC: sc-2783 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (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.