

# Calpain 11 (M-75): sc-50504

## 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 11 is a typical calpain with four domains, but in place of the typical domain IV, Calpain 11 has a similar calmodulin-like domain that associates, but does not interact with, the smaller regulatory subunit. Calpain 11 is found in the testis, localizing to the spermatozoa during the later stages of meiosis. It is expressed during spermatogenesis, which suggests that during meiosis and sperm functional processes, Calpain 11 may regulate calcium-dependent signal transduction events.

## REFERENCES

- Dear, T.N., et al. 1999. Diverse mRNA expression patterns of the mouse calpain genes Capn5, Capn6 and Capn11 during development. *Mech. Dev.* 89: 201-209.
- Huang, Y., et al. 2001. The calpain family and human disease. *Trends Mol. Med.* 7: 355-362.
- 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.
- Suzuki, K., et al. 2004. Structure, activation and biology of calpain. *Diabetes* 53: S12-S18.
- Ben-Aharon, I., et al. 2006. Calpain 11 is unique to mouse spermatogenic cells. *Mol. Reprod. Dev.* 73: 767-773.
- 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.
- Das, A., et al. 2006. Mechanism of apoptosis with the involvement of calpain and caspase cascades in human malignant neuroblastoma SH-SY5Y cells exposed to flavonoids. *Int. J. Cancer* 119: 2575-2585.

## CHROMOSOMAL LOCATION

Genetic locus: CAPN11 (human) mapping to 6p21.1; Capn11 (mouse) mapping to 17 B3.

## SOURCE

Calpain 11 (M-75) is a rabbit polyclonal antibody raised against amino acids 1-75 mapping at the N-terminus of Calpain 11 of mouse origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## APPLICATIONS

Calpain 11 (M-75) is recommended for detection of Calpain 11 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).

Suitable for use as control antibody for Calpain 11 siRNA (h): sc-62058, Calpain 11 siRNA (m): sc-62059, Calpain 11 shRNA Plasmid (h): sc-62058-SH, Calpain 11 shRNA Plasmid (m): sc-62059-SH, Calpain 11 shRNA (h) Lentiviral Particles: sc-62058-V and Calpain 11 shRNA (m) Lentiviral Particles: sc-62059-V.

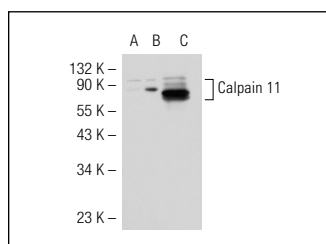
Molecular Weight of Calpain 11: 81 kDa.

Positive Controls: mouse testis extract: sc-2405, mouse thymus extract: sc-2406 or Calpain 11 (h): 293T lysate: sc-115046.

## 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.

## DATA



Calpain 11 (M-75): sc-50504. Western blot analysis of Calpain 11 expression in non-transfected 293T: sc-117752 (A) and human Calpain 11 transfected 293T: sc-115046 (B) whole cell lysates and mouse testis tissue extract (C).

## RESEARCH USE

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



Try **Calpain 11 (C-2): sc-376265** or **Calpain 11 (C-10): sc-376213**, our highly recommended monoclonal alternatives to Calpain 11 (M-75).