

Calpain 9 (H-210): sc-50502

BACKGROUND

Calpain 9 belongs to a family of 14 intracellular calcium activated cysteine proteases present in the fungi, plant and animal kingdoms. Several of these proteases have been implicated in cardiovascular diseases. On a high salt diet, Calpain 9 is downregulated by more than 50% in the heart. The differential regulation of Calpain 9 seen under such conditions may play a role in hypertensive target organ damage. The digestive tract-specific Calpain 9 is downregulated in gastric cancer cell lines, suggesting that it acts as a gastric cancer suppressor. Two known isoforms exist for Calpain 9 due to alternative splicing. The 2 isoforms vary in their amino acid sequences between amino acids 292 and 318.

REFERENCES

1. Murachi, T. 1984. Calcium-dependent proteinases and specific inhibitors: calpain and Calpastatin. *Biochem. Soc. Symp.* 45: 149-167.
2. Kawasaki, H., et al. 1996. Regulation of the calpain-Calpastatin system by membranes (review). *Mol. Membr. Biol.* 13: 217-224.
3. Johnson, G.V., et al. 1997. Calpains: intact and active? *Bioessays* 19: 1011-1018.

CHROMOSOMAL LOCATION

Genetic locus: CAPN9 (human) mapping to 1q42.2; Capn9 (mouse) mapping to 8 E2.

SOURCE

Calpain 9 (H-210) is a rabbit polyclonal antibody raised against amino acids 481-690 mapping at the C-terminus of Calpain 9 of human origin.

PRODUCT

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

APPLICATIONS

Calpain 9 (H-210) is recommended for detection of Calpain 9 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).

Calpain 9 (H-210) is also recommended for detection of Calpain 9 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for Calpain 9 siRNA (h): sc-62070, Calpain 9 siRNA (m): sc-62071, Calpain 9 shRNA Plasmid (h): sc-62070-SH, Calpain 9 shRNA Plasmid (m): sc-62071-SH, Calpain 9 shRNA (h) Lentiviral Particles: sc-62070-V and Calpain 9 shRNA (m) Lentiviral Particles: sc-62071-V.

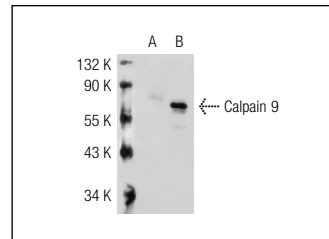
Molecular Weight of Calpain 9: 79 kDa.

Positive Controls: Calpain 9 (h): 293T Lysate: sc-117190, HISM cell lysate: sc-2229 or K-562 whole cell lysate: sc-2203.

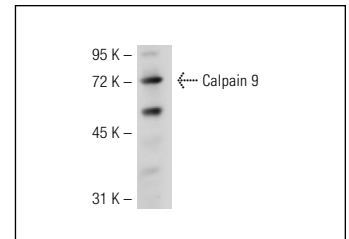
RECOMMENDED SECONDARY REAGENTS

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 9 (H-210): sc-50502. Western blot analysis of Calpain 9 expression in non-transfected: sc-117752 (A) and human Calpain 9 transfected: sc-117190 (B) 293T whole cell lysates.



Calpain 9 (H-210): sc-50502. Western blot analysis of Calpain 9 expression in HISM whole cell lysate.

SELECT PRODUCT CITATIONS

1. De Maria, A.B., et al. 2009. Calpain expression and activity during lens fiber cell differentiation. *J. Biol. Chem.* 125: M900561200.

STORAGE

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

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.


 MONOS
Satisfaction
Guaranteed

Try **Calpain 9 (G-12): sc-166517** or **Calpain 9 (E-6): sc-166750**, our highly recommended monoclonal alternatives to Calpain 9 (H-210).