

# Calpain 5 (H-105): sc-50500

## BACKGROUND

Calpains are calcium-activated thiol proteases involved in intracellular processing of proteins and signal transduction. The classic calpains are heterodimers with one large subunit, one small subunit and five EF-hand-calcium binding structures. The large subunit varies between family members and can be active without the small subunit. Calpain 5, sometimes referred to as HTRA3, belongs to the non-classical calpain subfamily that lacks the EF-hand-calcium-binding structures. Calpain 5 is ubiquitously expressed and localizes to the cytoplasm and nucleus. It is a homolog of Calpain 10. Calpain 5, in addition to Calpain 10 and Calpain 6, differ from other subfamily members by the presence of a T-domain that is homologous to the *Caenorhabditis elegans* protein Tra-3. Calpain 5, the human ortholog of this nematode protein, may play a role in sex determination.

## CHROMOSOMAL LOCATION

Genetic locus: CAPN5 (human) mapping to 11q13.5; Capn5 (mouse) mapping to 7 E2.

## SOURCE

Calpain 5 (H-105) is a rabbit polyclonal antibody raised against amino acids 1-105 mapping at the N-terminus of Calpain 5 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.

## STORAGE

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

## APPLICATIONS

Calpain 5 (H-105) is recommended for detection of Calpain 5 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 5 (H-105) is also recommended for detection of Calpain 5 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Calpain 5 siRNA (h): sc-62064, Calpain 5 siRNA (m): sc-62065, Calpain 5 shRNA Plasmid (h): sc-62064-SH, Calpain 5 shRNA Plasmid (m): sc-62065-SH, Calpain 5 shRNA (h) Lentiviral Particles: sc-62064-V and Calpain 5 shRNA (m) Lentiviral Particles: sc-62065-V.

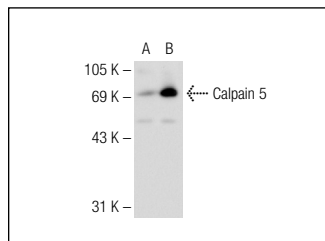
Molecular Weight of Calpain 5: 73 kDa.

Positive Controls: Calpain 5 (h): 293T Lysate: sc-113177, Calpain 5 (m): 293T Lysate: sc-126572 or TF-1 cell lysate: sc-2412.

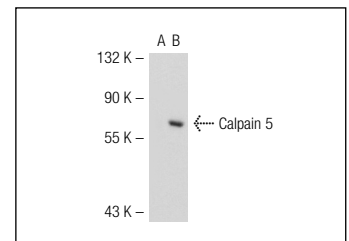
## RECOMMENDED SECONDARY REAGENTS

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 5 (H-105): sc-50500. Western blot analysis of Calpain 5 expression in non-transfected: sc-117752 (A) and human Calpain 5 transfected: sc-113177 (B) 293T whole cell lysates.



Calpain 5 (H-105): sc-50500. Western blot analysis of Calpain 5 expression in non-transfected: sc-117752 (A) and mouse Calpain 5 transfected: sc-126572 (B) 293T whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **Calpain 5 (A-5): sc-271271**, our highly recommended monoclonal alternative to Calpain 5 (H-105).