

Calpain reg (N-19): sc-7529

BACKGROUND

Calpain 1 is an intracellular calcium-dependent protease that cleaves cytoskeletal and submembranous proteins. Calpains are nonlysosomal, calcium-activated intracellular cysteine proteases. Calpains mediate specific Ca^{2+} -dependent processes including cell fusion, mitosis and meiosis. Calpains are heterodimers of a small regulatory subunit and one of three large catalytic subunits, designated Calpain 1, Calpain 2 and Calpain p94. Calpastatin regulates Calpain by inhibiting both the proteolytic activity of Calpain and its binding to membranes. Calpastatin exists in two types, tissue type and erythrocyte type, resulting from both alternative splicing and proteolytic processing. Calpain-1 co-localizes with human leukocyte antigen-DR (HLA-DR) on activated microglia in the aging brain. Calpain influences the process of spermatogenesis and in the events preceding fertilization, such as the acrosome reaction.

CHROMOSOMAL LOCATION

Genetic locus: CAPNS1 (human) mapping to 19q13.12; Capns1 (mouse) mapping to 7 B1.

SOURCE

Calpain reg (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Calpain reg 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.

Blocking peptide available for competition studies, sc-7529 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Calpain reg (N-19) is recommended for detection of calpain regulatory subunit 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 reg (N-19) is also recommended for detection of calpain regulatory subunit in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Calpain reg siRNA (h): sc-29887, Calpain reg siRNA (m): sc-29888, Calpain reg shRNA Plasmid (h): sc-29887-SH, Calpain reg shRNA Plasmid (m): sc-29888-SH, Calpain reg shRNA (h) Lentiviral Particles: sc-29887-V and Calpain reg shRNA (m) Lentiviral Particles: sc-29888-V.

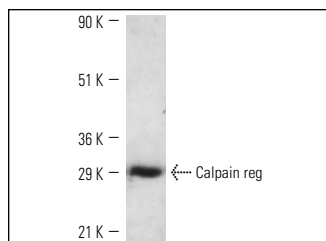
Molecular Weight of Calpain reg: 30 kDa.

Positive Controls: TF-1 cell lysate: sc-2412, A-431 whole cell lysate: sc-2201 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 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (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.

DATA



Calpain reg (N-19): sc-7529. Western blot analysis of human recombinant Calpain 1.

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.



Try **Calpain reg (P-1): sc-32325** or **Calpain reg (5B9): sc-32785**, our highly recommended monoclonal alternatives to Calpain reg (N-19).