

Calpain 6 (1395CT446.22.5): sc-517318

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 6 (Capn6), also designated calpamodulin, CalpM or calpain-like protease X-linked, belongs to the peptidase C-2 family of proteins. It is exclusively expressed in placenta and may play a role in embryogenesis. Calpain 6, in addition to Calpain 10 and Calpain 5, differs from other subfamily members by the presence of a T-domain that is homologous to the *Caenorhabditis elegans* protein Tra-3. Calpain 6 is distinct from other calpains in that it lacks the cysteine and histidine residues required for protease activity. Overexpression of Calpain 6 leads to failure of cytokinesis and formation of microtubule bundles. This results in cells containing multiple nuclei. Calpain 6 may function in Actin organization and microtubule stability.

REFERENCES

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STORAGE

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

CHROMOSOMAL LOCATION

Genetic locus: CAPN6 (human) mapping to Xq23.

SOURCE

Calpain 6 (1395CT446.22.5) is a mouse monoclonal antibody raised against a recombinant protein corresponding to Calpain 6 of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

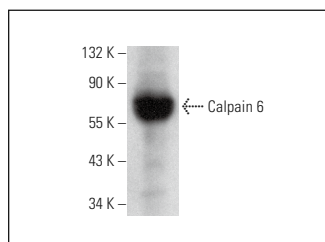
Calpain 6 (1395CT446.22.5) is recommended for detection of Calpain 6 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for Calpain 6 siRNA (h): sc-62066, Calpain 6 shRNA Plasmid (h): sc-62066-SH and Calpain 6 shRNA (h) Lentiviral Particles: sc-62066-V.

Molecular Weight of Calpain 6: 74 kDa.

Positive Controls: human placenta extract: sc-363772.

DATA



Calpain 6 (1395CT446.22.5): sc-517318. Western blot analysis of Calpain 6 expression in human placenta tissue extract.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.