SANTA CRUZ BIOTECHNOLOGY, INC.

# Calpain 7 (m): 293T Lysate: sc-118965

## BACKGROUND

Calpains are calcium-activated thiol proteases. Calpain 7 (also known as PalBH) is a member of the non-EF-hand subfamily of Calpains and may be calcium-independent. Calpain 7 has 813 amino acid residues and is a divergent member of the Calpain family. It has only 26-35% shared identity to other members and most of this homology is in the protease domain. Calpain 7 seems to be related to PalB, an *Aspergillus nidulans* protease that is involved in alkaline ambient pH adaptation. A long N-terminal domain (N) and a PalB homologous domain (PBH) flank the Calpain protease domain of Calpain 7. Calpain 7 appears to have an ubiquitous tissue distribution, but is highly expressed in the brain. It localizes to the cytoplasm and the nucleus, but its activated form is found only in the nucleus. Calpain 7 is an atypical Calpain that lacks domain IV and cannot form a dimer with the 30 kDa regulatory subunit. Upregulation of Calpain 7 in striatal or cortical tissue of Huntington's disease knock-in mice suggests that this protein may be involved in the onset of the disease.

## REFERENCES


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## CHROMOSOMAL LOCATION

Genetic locus: Capn7 (mouse) mapping to 14 B.

## PRODUCT

Calpain 7 (m): 293T Lysate represents a lysate of mouse Calpain 7 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## RESEARCH USE

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

## APPLICATIONS

Calpain 7 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Calpain 7 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## PROTOCOLS

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