



Calpain 11 (h2): 293T Lysate: sc-158326

BACKGROUND

Calpains are calcium-activated thiol proteases. They are heterodimers with one large subunit and one small subunit. The large subunit varies between family members and can be active without the small subunit. Calpains are involved in intracellular processing of proteins. Calpain 11 is a typical calpain with four domains but, in place of the typical domain IV is a similar calmodulin-like domain that associates but does not interact with the smaller regulatory subunit. Calpain 11 is found in the testis, localizing to the spermatozoa during the later stages of meiosis. It is expressed during spermatogenesis, which suggests that during meiosis and sperm functional processes, Calpain 11 may regulate calcium dependent signal transduction events.

REFERENCES

1. Dear, T.N., et al. 1999. Diverse mRNA expression patterns of the mouse calpain genes Capn5, Capn6 and Capn11 during development. *Mech. Dev.* 89: 201-209.
2. Huang, Y., et al. 2001. The calpain family and human disease. *Trends Mol. Med.* 7: 355-362.
3. Gafni, J., et al. 2004. Inhibition of calpain cleavage of huntingtin reduces toxicity: accumulation of calpain/caspase fragments in the nucleus. *J. Biol. Chem.* 279: 20211-20220.
4. Suzuki, K., et al. 2004. Structure, activation, and biology of calpain. *Diabetes* 53: S12-S18.
5. Ben-Aharon, I., et al. 2006. Calpain 11 is unique to mouse spermatogenic cells. *Mol. Reprod. Dev.* 73: 767-773.
6. Hou, S.T., et al. 2006. Calpain-cleaved collapsin response mediator protein-3 induces neuronal death after glutamate toxicity and cerebral ischemia. *J. Neurosci.* 26: 2241-2249.
7. Saez, M.E., et al. 2006. The therapeutic potential of the calpain family: new aspects. *Drug Discov. Today* 11: 917-923.
8. Das, A., et al. 2006. Mechanism of apoptosis with the involvement of calpain and caspase cascades in human malignant neuroblastoma SH-SY5Y cells exposed to flavonoids. *Int. J. Cancer* 119: 2575-2585.
9. Huh, J.W., et al. 2006. Regionally distinct patterns of calpain activation and traumatic axonal injury following contusive brain injury in immature rats. *Dev. Neurosci.* 28: 466-476.

CHROMOSOMAL LOCATION

Genetic locus: CAPN11 (human) mapping to 6p21.1.

PRODUCT

Calpain 11 (h2): 293T Lysate represents a lysate of human Calpain 11 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

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.

APPLICATIONS

Calpain 11 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive Calpain 11 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.

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.