SANTA CRUZ BIOTECHNOLOGY, INC.

Legumain (h): CHO Lysate: sc-110066

BACKGROUND

Legumain, also known as LGMN, AEP (asparaginyl endopeptidase) or PRSC1, is a 433 amino acid protein that localizes to the lysosome and belongs to the peptidase C13 family. Expressed ubiquitously with particularly high expression in placenta, heart and kidney, Legumain functions as a cysteine protease that specifically catalyzes the hydrolysis of asparaginyl and aspartyl bonds. Additionally, Legumain is thought to be involved in the processing of bacterial proteins for MHC class II antigen presentation in the lysosomal/endosomal system. Legumain exists as both a precursor and a fully mature, active enzyme that is produced in dendritic cells. Overexpression of Legumain may be associated with the formation of solid tumors, suggesting a role for Legumain in carcinogenesis. Multiple isoforms of Legumain exist due to alternative splicing events.

REFERENCES

1. Tanaka, T., et al. 1996. Molecular cloning of a human cDNA encoding putative cysteine protease (PRSC1) and its chromosome assignment to 14q32.1. Cytogenet. Cell Genet. 74: 120-123.
2. Chen, J.M., et al. 1997. Cloning, isolation, and characterization of mammalian Legumain, an asparaginyl endopeptidase. J. Biol. Chem. 272: 8090-8098.
3. Li, D.N., et al. 2003. Multistep autoactivation of asparaginyl endopeptidase *in vitro* and *in vivo*. J. Biol. Chem. 278: 38980-38990.
4. Burster, T., et al. 2004. Cathepsin G, and not the asparagine-specific endoprotease, controls the processing of myelin basic protein in lysosomes from human B lymphocytes. J. Immunol. 172: 5495-5503.
5. Murthy, R.V., et al. 2005. Legumain expression in relation to clinicopathologic and biological variables in colorectal cancer. Clin. Cancer Res. 11: 2293-2299.
6. Liu, Z., et al. 2008. Neuroprotective actions of PIKE-L by inhibition of SET proteolytic degradation by asparagine endopeptidase. Mol. Cell 29: 665-678.

CHROMOSOMAL LOCATION

Genetic locus: LGMN (human) mapping to 14q32.12.

PRODUCT

Legumain (h): CHO Lysate represents a lysate of human Legumain transfected CHO cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Legumain (h): CHO Lysate is suitable as a Western Blotting positive control for human reactive Legumain antibodies.

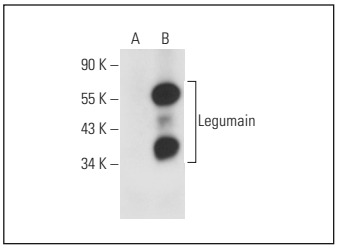
Control CHO Lysate: sc-117750 is available as a Western Blotting negative control lysate derived from non-transfected CHO cells.

Legumain (B-11): sc-133124 is recommended as a positive control antibody for Western Blot analysis of enhanced human Legumain expression in Legumain transfected CHO cells (starting dilution 1:100, dilution range 1:100-1:1,000).

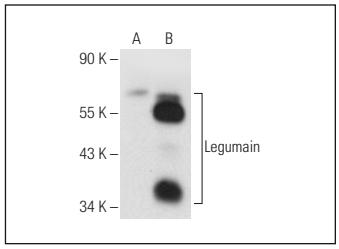
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



Legumain (B-11): sc-133124. Western blot analysis of Legumain expression in non-transfected: sc-117750 (**A**) and human Legumain transfected: sc-110066 (**B**) CHO whole cell lysates.



Legumain (B-8): sc-133234. Western blot analysis of Legumain expression in non-transfected: sc-117750 (**A**) and human Legumain transfected: sc-110066 (**B**) CHO whole cell lysates.

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.

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.