

UCH-L3 (h): 293 Lysate: sc-113153

BACKGROUND

UCH-L1 (ubiquitin C-terminal hydrolase) is a member of a gene family whose products hydrolyze small C-terminal adducts of ubiquitin to generate the ubiquitin monomer. Expression of UCH-L1 is highly specific to neurons and to cells of the diffuse neuroendocrine system and their tumors. UCH-L1 is expressed in brain neurons. Examination of specific brain regions reveals expression in all areas tested, particularly in the substantia nigra. UCH-L1 represents 1-2% of total soluble brain protein. Its occurrence in Lewy bodies and its function in the proteasome pathway make it a compelling candidate gene in Parkinson's disease. The gene which encodes UCH-L1 maps to human chromosome 4p14. The 230 amino acid human UCH-L3 protein is 54% identical to that of UCH-L1. UCH-L3 is the predominant thiol protease and has high-affinity binding sites for ubiquitin.

REFERENCES

1. Doran, J.F., Jackson, P., Kynoch, P. and Thompson, R.J. 1983. Isolation of PGP 9.5, a new human neurone-specific protein detected by high resolution two-dimensional electrophoresis. *J. Neurochem.* 40: 1542-1547.
2. Wilkinson, K.D., Lee, K.M., Deshpande, S., Duerksen-Hughes, P., Boss, J.M. and Pohl, J. 1989. The neuron-specific protein PGP 9.5 is a ubiquitin carboxyl-terminal hydrolase. *Science* 246: 670-672.
3. Mayer, A.N. and Wilkinson, K.D. 1989. Detection, resolution and nomenclature of multiple ubiquitin carboxyl-terminal esterases from bovine calf thymus. *Biochemistry* 28: 166-172.
4. Edwards, Y.H., Fox, M.F., Povey, S., Hinks, L.J., Day, I.N.M. and Thompson, R.J. 1991. The gene for human neuron specific ubiquitin C-terminal hydrolase maps to chromosome 4p14. *Cytogenet. Cell Genet.* 58: 1886-1887.
5. Leroy, E., Boyer, R. and Polymeropoulos, M.H. 1998. Intron-exon structure of ubiquitin C-terminal hydrolase-L1. *DNA Res.* 5: 397-400.

CHROMOSOMAL LOCATION

Genetic locus: UCHL3 (human) mapping to 13q22.2.

PRODUCT

UCH-L3 (h): 293 Lysate represents a lysate of human UCH-L3 transfected 293 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

UCH-L3 (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive UCH-L3 antibodies. Recommended use: 10-20 µl per lane.

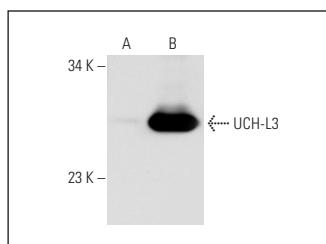
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

UCH-L3 (ZE-17): sc-100340 is recommended as a positive control antibody for Western Blot analysis of enhanced human UCH-L3 expression in UCH-L3 transfected 293 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



UCH-L3 (ZE-17): sc-100340. Western blot analysis of UCH-L3 expression in non-transfected: sc-110760 (A) and human UCH-L3 transfected: sc-113153 (B) 293 whole cell lysates.

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.