SANTA CRUZ BIOTECHNOLOGY, INC.

UCH-L1 (H-40): sc-25800

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 to 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 disease. The gene which encodes UCH-L1 maps to human chromosome 4p13. 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.

CHROMOSOMAL LOCATION

Genetic locus: UCHL1 (human) mapping to 4p13; Uchl1 (mouse) mapping to 5 C3.1.

SOURCE

UCH-L1 (H-40) is a rabbit polyclonal antibody raised against amino acids 184-223 mapping at the C-terminus of UCH-L1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

RESEARCH USE

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

APPLICATIONS

UCH-L1 (H-40) is recommended for detection of UCH-L1 of mouse, rat and 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

UCH-L1 (H-40) is also recommended for detection of UCH-L1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for UCH-L1 siRNA (h): sc-42304, UCH-L1 siRNA (m): sc-42305, UCH-L1 shRNA Plasmid (h): sc-42304-SH, UCH-L1 shRNA Plasmid (m): sc-42305-SH, UCH-L1 shRNA (h) Lentiviral Particles: sc-42304-V and UCH-L1 shRNA (m) Lentiviral Particles: sc-42305-V.

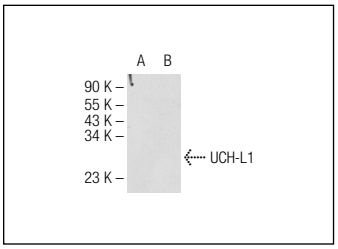
Molecular Weight of UCH-L1: 25 kDa.

Positive Controls: UCH-L1 (h): 293T Lysate: sc-176636, IMR-32 cell lysate: sc-2409 or rat brain extract: sc-2392.

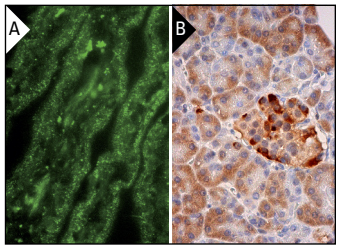
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



UCH-L1 (H-40): sc-25800. Western blot analysis of UCH-L1 expression in non-transfected: sc-117752 (**A**) and human UCH-L1 transfected: sc-176636 (**B**) 293T whole cell lysates.



UCH-L1 (H-40): sc-25800. Immunofluorescence staining of normal mouse intestine frozen section showing cytoplasmic staining (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of Islets of Langerhans and glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Zhou, H., et al. 2011. Damage of the interstitial cells of Cajal and myenteric neurons causing ileus in acute necrotizing pancreatitis rats. Surgery 149: 262-275.
2. Zhou, H., et al. 2012. Effect of octreotide on enteric motor neurons in experimental acute necrotizing pancreatitis. PLoS ONE 7: e52163.

PROTOCOLS

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

MONOS Satisfaction Guaranteed

Try **UCH-L1 (C-4): sc-271639** or **UCH-L1 (13C4): sc-58594**, our highly recommended monoclonal alternatives to UCH-L1 (H-40).