

HACE1 (T-14): sc-139143

BACKGROUND

Ubiquitination is an important mechanism through which three classes of enzymes act in concert to target short-lived or abnormal proteins for destruction. The three classes of enzymes involved in ubiquitination are the ubiquitin-activating enzymes (E1s), the ubiquitin-conjugating enzymes (E2s) and the ubiquitin-protein ligases (E3s). HACE1 (HECT domain and ankyrin repeat containing, E3 ubiquitin-protein ligase 1), also known as KIAA1320, is a 909 amino acid protein that localizes to both the cytoplasm and the endoplasmic reticulum and contains one HECT domain and six ANK repeats. Expressed in kidney, heart and brain, HACE1 functions as an E3 ubiquitin-protein ligase that interacts with the proteasome and is thought to play a role in protein degradation. HACE1 is downregulated in Wilms tumor, suggesting a possible role in tumor suppression.

REFERENCES

1. Nagase, T., et al. 2000. Prediction of the coding sequences of unidentified human genes. XVI. The complete sequences of 150 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 7: 65-73.
2. Fernandez, C.V., et al. 2001. Detection of a novel t(6;15)(q21;q21) in a pediatric Wilms tumor. Cancer Genet. Cytogenet. 129: 165-167.
3. Anglesio, M.S., et al. 2004. Differential expression of a novel Ankyrin containing E3 ubiquitin-protein ligase, HACE1, in sporadic Wilms' tumor versus normal kidney. Hum. Mol. Genet. 13: 2061-2074.
4. Zhang, L., et al. 2007. The E3 ligase HACE1 is a critical chromosome 6q21 tumor suppressor involved in multiple cancers. Nat. Med. 13: 1060-1069.
5. Hibi, K., et al. 2008. Aberrant methylation of the HACE1 gene is frequently detected in advanced colorectal cancer. Anticancer Res. 28: 1581-1584.
6. Stewenius, Y., et al. 2008. High-resolution molecular cytogenetic analysis of Wilms tumors highlights diagnostic difficulties among small round cell kidney tumors. Genes Chromosomes Cancer 47: 845-852.

CHROMOSOMAL LOCATION

Genetic locus: HACE1 (human) mapping to 6q16.3; HACE1 (mouse) mapping to 10 B2.

SOURCE

HACE1 (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of HACE1 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.

Blocking peptide available for competition studies, sc-139143 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

HACE1 (T-14) is recommended for detection of HACE1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

HACE1 (T-14) is also recommended for detection of HACE1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for HACE1 siRNA (h): sc-95301, HACE1 siRNA (m): sc-145889, HACE1 shRNA Plasmid (h): sc-95301-SH, HACE1 shRNA Plasmid (m): sc-145889-SH, HACE1 shRNA (h) Lentiviral Particles: sc-95301-V and HACE1 shRNA (m) Lentiviral Particles: sc-145889-V.

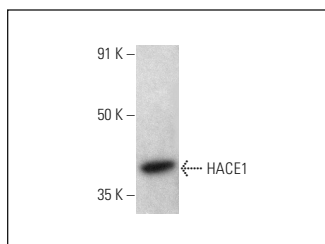
Molecular Weight of HACE1: 103 kDa.

Positive Controls: MDA-MB-231 cell lysate: sc-2232.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



HACE1 (T-14): sc-139143. Western blot analysis of HACE1 expression in MDA-MB-231 whole cell lysate.

RESEARCH USE

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

MONOS
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Try **HACE1 (C-9): sc-515746**, our highly recommended monoclonal alternative to HACE1 (T-14).