SANTA CRUZ BIOTECHNOLOGY, INC.

DOHH (E-15): sc-55159

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The Power to Question

BACKGROUND

DOHH (deoxyhypusine hydroxylase/monooxygenase), also known as HLRC1 (HEAT-like (PBS lyase) repeat containing 1), is a metalloenzyme involved in hypusine synthesis. It contains eight tandem HEAT-repeats, four at the N-terminus and four at the C-terminus. DOHH is an important player in mediating the posttranslational modifications of eIF5a to form hypusine. The first step of this reaction is catalyzed by DHS (deoxyhypusine synthase), which is responsible for transferring the aminobutyl moiety of spermidine to a lysine residue of eIF5a to form a deoxyhypusine-containing eIF5a intermediate. DOHH catalyzes the second step, hydroxylating the intermediate to form the hypusine residue thereby activating eIF5a. DHS, DOHH and eIF5a are evolutionarily conserved proteins that are essential for cell proliferation. Inhibition of DOHH can result in cell cycle arrest at the G_1/S boundary. This suggests a potential use of DOHH inhibitors in antitumor therapy.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: DOHH (human) mapping to 19p13.3; Dohh (mouse) mapping to 10 C1.

RESEARCH USE

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

SOURCE

DOHH (E-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of DOHH 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-55159 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DOHH (E-15) is recommended for detection of DOHH of mouse 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).

DOHH (E-15) is also recommended for detection of DOHH in additional species, including canine and bovine.

Suitable for use as control antibody for DOHH siRNA (h): sc-62222, DOHH siRNA (m): sc-62223, DOHH shRNA Plasmid (h): sc-62222-SH, DOHH shRNA Plasmid (m): sc-62223-SH, DOHH shRNA (h) Lentiviral Particles: sc-62222-V and DOHH shRNA (m) Lentiviral Particles: sc-62223-V.

Molecular Weight of DOHH: 33 kDa.

Positive Controls: SK-N-SH cell lysate: sc-2410, LNCaP cell lysate: sc-2231 or MIA PaCa-2 cell lysate: sc-2285.

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.

STORAGE

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

PROTOCOLS

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