SANTA CRUZ BIOTECHNOLOGY, INC.

eIF4H (C-15): sc-131925

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The Power to Question

BACKGROUND

The initiation of protein synthesis in eukaryotic cells is regulated by interactions between protein initiation factors and RNA molecules. These interactions are facilitated, in part, by the eukaryotic initiation factor 4 family (eIF4) of proteins that are involved in the early initiation of protein synthesis. eIF4H (eukaryotic translation initiation factor 4H), also known as WSCR1 or WBSCR1, is a 248 amino acid protein that localizes to the perinuclear region of the cytoplasm and is expressed as two isoforms, designated short and long. While the short isoform is expressed predominately in liver and kidney, both isoforms are present in lung, pancreas, testis and spleen, where they function to stimulate RNA helicase activity. Specifically, eIF4H enhances the activity of eIF4A in the translation initiation complex, thereby promoting protein synthesis. Defects in the gene encoding eIF4H are associated with Williams-Beuren syndrome (WBS), a rare developmental disorder characterized by cardiovascular and musculo-skeletal abnormalities.

REFERENCES

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4. Doepker, R.C., et al. 2004. Herpes simplex virus virion host shutoff protein is stimulated by translation initiation factors eIF4B and eIF4H. J. Virol. 78: 4684-4699.
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CHROMOSOMAL LOCATION

Genetic locus: EIF4H (human) mapping to 7q11.23; Eif4h (mouse) mapping to 5 G2.

SOURCE

eIF4H (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of eIF4H 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-131925 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

eIF4H (C-15) is recommended for detection of eIF4H isoforms Long and Short 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); non cross-reactive with other eIF4 family members.

eIF4H (C-15) is also recommended for detection of eIF4H isoforms Long and Short in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for eIF4H siRNA (h): sc-89585, eIF4H siRNA (m): sc-144622, eIF4H shRNA Plasmid (h): sc-89585-SH, eIF4H shRNA Plasmid (m): sc-144622-SH, eIF4H shRNA (h) Lentiviral Particles: sc-89585-V and eIF4H shRNA (m) Lentiviral Particles: sc-144622-V.

Molecular Weight of eIF4H: 25 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

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.

RESEARCH USE

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

PROTOCOLS

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