

HELIC1 (G-19): sc-68558

BACKGROUND

HELIC1 (helicase, ATP binding 1), also known as ASCC3 (activating signal co-integrator 1 complex subunit 3) or RNAH, is a 2,202 amino acid protein that localizes to the cytoplasm and contains 2 helicase ATP-binding domains, 2 helicase C-terminal domains and 3 SEC63 domains. Expressed ubiquitously, HELIC1 exists as a component of the multi-protein TRIP4 complex and is thought to enhance the transactivation of NFκB, SRF and c-Jun. The gene encoding HELIC1 maps to human chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, Porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

REFERENCES

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2. Makino, N., et al. 2001. Isolation and characterization of the human gene homologous to the *Drosophila* headcase (*hdc*) gene in chromosome bands 6q23-q24, a region of common deletion in human pancreatic cancer. *DNA Seq.* 11: 547-553.
3. Jung, D.J., et al. 2002. Novel transcription coactivator complex containing activating signal co-integrator 1. *Mol. Cell. Biol.* 22: 5203-5211.
4. McQueen, M.B., et al. 2005. Combined analysis from eleven linkage studies of bipolar disorder provides strong evidence of susceptibility loci on chromosomes 6q and 8q. *Am. J. Hum. Genet.* 77: 582-595.
5. Chien, C.C., et al. 2006. A homologue of the *Drosophila* headcase protein is a novel tumor marker for early-stage colorectal cancer. *Oncol. Rep.* 15: 919-926.
6. Di Meo, G.P., et al. 2007. An advanced sheep (*Ovis aries*, 2n = 54) cytogenetic map and assignment of 88 new autosomal loci by fluorescence *in situ* hybridization and R-banding. *Anim. Genet.* 38: 233-240.

CHROMOSOMAL LOCATION

Genetic locus: ASCC3 (human) mapping to 6q16.3; *Ascc3* (mouse) mapping to 10 B3.

SOURCE

HELIC1 (G-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HELIC1 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-68558 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-68558 X, 200 µg/0.1 ml.

APPLICATIONS

HELIC1 (G-19) is recommended for detection of HELIC1 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).

HELIC1 (G-19) is also recommended for detection of HELIC1 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for HELIC1 siRNA (h): sc-75241, HELIC1 siRNA (m): sc-75242, HELIC1 shRNA Plasmid (h): sc-75241-SH, HELIC1 shRNA Plasmid (m): sc-75242-SH, HELIC1 shRNA (h) Lentiviral Particles: sc-75241-V and HELIC1 shRNA (m) Lentiviral Particles: sc-75242-V.

HELIC1 (G-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of HELIC1: 251 kDa.

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.