

HELIC2 (G-9): sc-393170

BACKGROUND

HELIC2, also known as SNRNP200 (small nuclear ribonucleoprotein 200 kDa (U5)), ASCC3L1 or BRR2, is a 2,136 amino acid protein that localizes to the nucleus and contains two SEC63 domains, two helicase C-terminal domains and two helicase ATP-binding domains. Existing as multiple alternatively spliced isoforms, HELIC2 functions as an RNA helicase that is thought to promote specific RNA-RNA conformational changes which are important in the second step of RNA splicing. The gene encoding HELIC2 maps to human chromosome 2, which houses over 1,400 genes and comprises nearly 8% of the human genome. Harlequin ichthyosis, a rare and morbid skin deformity, is associated with mutations in the chromosome 2-localized ABCA12 gene, while the lipid metabolic disorder sitosterolemia is associated with defects in the ABCG5 and ABCG8 genes, which also map to chromosome 2.

REFERENCES

1. Lauber, J., et al. 1996. The HeLa 200 kDa U5 snRNP-specific protein and its homologue in *Saccharomyces cerevisiae* are members of the DEXH-box protein family of putative RNA helicases. *EMBO J.* 15: 4001-4015.
2. Achsel, T., et al. 1998. The human U5-220kD protein (hPrp8) forms a stable RNA-free complex with several U5-specific proteins, including an RNA unwindase, a homologue of ribosomal elongation factor EF-2, and a novel WD-40 protein. *Mol. Cell. Biol.* 18: 6756-6766.
3. Meister, G., et al. 2001. SMNrp is an essential pre-mRNA splicing factor required for the formation of the mature spliceosome. *EMBO J.* 20: 2304-2314.
4. Zhou, Z., et al. 2002. Comprehensive proteomic analysis of the human spliceosome. *Nature* 419: 182-185.
5. Jurica, M.S., et al. 2002. Purification and characterization of native spliceosomes suitable for three-dimensional structural analysis. *RNA* 8: 426-439.

CHROMOSOMAL LOCATION

Genetic locus: SNRNP200 (human) mapping to 2q11.2; Snrnp200 (mouse) mapping to 2 F1.

SOURCE

HELIC2 (G-9) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of HELIC2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HELIC2 (G-9) is available conjugated to agarose (sc-393170 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393170 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393170 PE), fluorescein (sc-393170 FITC), Alexa Fluor[®] 488 (sc-393170 AF488), Alexa Fluor[®] 546 (sc-393170 AF546), Alexa Fluor[®] 594 (sc-393170 AF594) or Alexa Fluor[®] 647 (sc-393170 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-393170 AF680) or Alexa Fluor[®] 790 (sc-393170 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

HELIC2 (G-9) is recommended for detection of HELIC2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

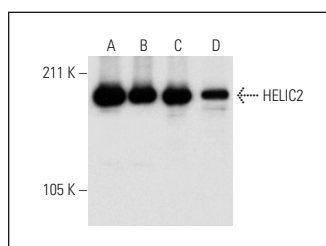
HELIC2 (G-9) is also recommended for detection of HELIC2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for HELIC2 siRNA (h): sc-75243, HELIC2 siRNA (m): sc-75244, HELIC2 shRNA Plasmid (h): sc-75243-SH, HELIC2 shRNA Plasmid (m): sc-75244-SH, HELIC2 shRNA (h) Lentiviral Particles: sc-75243-V and HELIC2 shRNA (m) Lentiviral Particles: sc-75244-V.

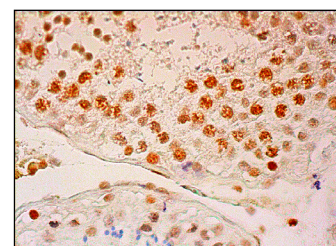
Molecular Weight of HELIC2: 200 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132, BJAB nuclear extract: sc-2145 or HeLa nuclear extract: sc-2120.

DATA



HELIC2 (G-9): sc-393170. Western blot analysis of HELIC2 expression in Jurkat (A), BJAB (B) and HeLa (C) nuclear extracts and RAW 264.7 whole cell lysate (D).



HELIC2 (G-9): sc-393170. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing nuclear staining of cells in seminiferous ducts.

SELECT PRODUCT CITATIONS

1. Jin, L., et al. 2020. STRAP regulates alternative splicing fidelity during lineage commitment of mouse embryonic stem cells. *Nat. Commun.* 11: 5941.

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 for detailed protocols and support products.

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