

HELIC2 (N-20): sc-68563

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 2 SEC63 domains, 2 helicase C-terminal domains and 2 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 U5-220 kD 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.
6. Peng, R., et al. 2002. PSF and p54nrb bind a conserved stem in U5 snRNA. *RNA* 8: 1334-1347.

CHROMOSOMAL LOCATION

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

SOURCE

HELIC2 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of HELIC2 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-68563 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-68563 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HELIC2 (N-20) is recommended for detection of HELIC2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

HELIC2 (N-20) is also recommended for detection of HELIC2 in additional species, including equine, canine, bovine, porcine and avian.

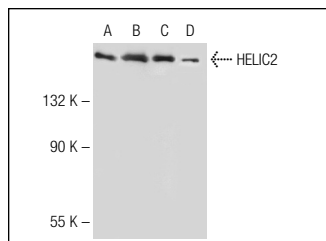
Suitable for use as control antibody for HELIC2 siRNA (h): sc-75243, HELIC2 siRNA (m): sc-75244, HELIC2 shRNA Plasmid (h): sc-75243-SH, HELIC2 shRNA Plasmid (m): sc-75244-SH, HELIC2 shRNA (h) Lentiviral Particles: sc-75243-V and HELIC2 shRNA (m) Lentiviral Particles: sc-75244-V.

HELIC2 (N-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of HELIC2: 200 kDa.

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

DATA



HELIC2 (N-20): sc-68563. Western blot analysis of HELIC2 expression in HeLa (A), Jurkat (B), BJAB (C) and RAW 264.7 (D) nuclear extracts.

SELECT PRODUCT CITATIONS

1. Tanackovic, G., et al. 2011. PRPF mutations are associated with generalized defects in spliceosome formation and pre-mRNA splicing in patients with retinitis pigmentosa. *Hum. Mol. Genet.* 20: 2116-2130.

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.



Try **HELIC2 (G-9): sc-393170** or **HELIC2 (B-11): sc-393517**, our highly recommended monoclonal alternatives to HELIC2 (N-20).