

SHQ1 (N-15): sc-99629

BACKGROUND

SHQ1 is a 577 amino acid protein that belongs to the SHQ1 family and contains one CS domain. The first 445 amino acids of yeast and human SHQ1 share 26% identity. SHQ1 directly interacts with Dyskerin alone, but not in the context of the core trimer composed of Dyskerin, NOP10 and NHP2, nor in the presence of NAF1. SHQ1 does not however interact with NAF1. SHQ1 assists in the assembly of H/ACA-box ribonucleoproteins that function in the processing of ribosomal RNAs, modification of spliceosomal small nuclear RNAs, and stabilization of telomerase. SHQ1, FDXP1 and RYBP have been suggested to be potential cooperative tumor suppressors for prostate cancer. The SHQ1 gene is conserved in chimpanzee, dog, cow, mouse, rat, chicken, *C. elegans*, *S. pombe*, *S. cerevisiae*, *K. lactis* and *E. gossypii*, and maps to human chromosome 3p13. Chromosome 3 is made up of about 214 million bases encoding over 1,100 genes.

REFERENCES

1. Yang, P.K., et al. 2002. The Shq1p.Naf1p complex is required for box H/ACA small nucleolar ribonucleoprotein particle biogenesis. *J. Biol. Chem.* 277: 45235-45242.
2. Braga, E.A., et al. 2003. New tumor suppressor genes in hot spots of human chromosome 3: new methods of identification. *Mol. Biol.* 37: 194-211.
3. Yue, Y., et al. 2005. Genomic structure and paralogous regions of the inversion breakpoint occurring between human chromosome 3p12.3 and orangutan chromosome 2. *Cytogenet. Genome Res.* 108: 98-105.
4. Muzny, D.M., et al. 2006. The DNA sequence, annotation and analysis of human chromosome 3. *Nature* 440: 1194-1198.
5. Singh, M., et al. 2009. Structure and functional studies of the CS domain of the essential H/ACA ribonucleoprotein assembly protein SHQ1. *J. Biol. Chem.* 284: 1906-1916.
6. Grozdanov, P.N., et al. 2009. SHQ1 is required prior to NAF1 for assembly of H/ACA small nucleolar and telomerase RNPs. *RNA* 15: 1188-1197.
7. Taylor, B.S., et al. 2010. Integrative genomic profiling of human prostate cancer. *Cancer Cell.* 18: 11-22.

CHROMOSOMAL LOCATION

Genetic locus: SHQ1 (human) mapping to 3p13.

SOURCE

SHQ1 (N-15) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of SHQ1 of human origin.

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.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-99629 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SHQ1 (N-15) is recommended for detection of SHQ1 of 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).

SHQ1 (N-15) is also recommended for detection of SHQ1 in additional species, including bovine.

Suitable for use as control antibody for SHQ1 siRNA (h): sc-78189, SHQ1 shRNA Plasmid (h): sc-78189-SH and SHQ1 shRNA (h) Lentiviral Particles: sc-78189-V.

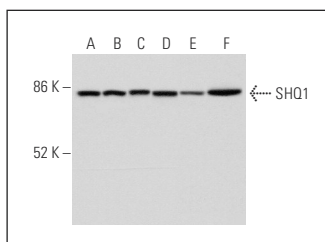
Molecular Weight of SHQ1: 65 kDa.

Positive Controls: ACHN whole cell lysate: sc-364365, Hep G2 cell lysate: sc-2227 or NTERA-2 cl.D1 whole cell lysate: sc-364181.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



SHQ1 (N-15): sc-99629. Western blot analysis of SHQ1 expression in Hep G2 (A), NTERA-2 cl.D1 (B), RT-4 (C), HEK293T (D), SCC-4 (E) and ACHN (F) whole cell lysates.

RESEARCH USE

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