

Lsh (22): sc-136459

BACKGROUND

The SNF2 family of helicases are thought to act as transcriptional regulators by their ability to alter the structure of chromatin. One such member, lymphoid-specific helicase (Lsh, also designated Hells for lymphoid-specific DNA helicase), is highly expressed in lymphoid precursor cells in adult animals and is required for the proliferation of peripheral T lymphocytes. Lsh is also expressed in fetal liver and more abundantly in fetal thymus. Lsh protein shows substantial homology to other members of the SNF2 family that are involved in chromatin remodeling and transcription, however it does not show similarity to members involved in DNA repair or recombination. The similarity of Lsh to another SNF2 homolog, Mi-2, which functions as a transcriptional silencer in chromatin remodeling, suggests that Lsh may participate in chromatin repression to regulate transcription, rather than chromatin "opening".

REFERENCES

1. Eisen, J.A., et al. 1995. Evolution of the SNF2 family of proteins: subfamilies with distinct sequences and functions. *Nucleic Acids Res.* 23: 2715-2723.
2. Jarvis, C.D., et al. 1996. A novel putative helicase produced in early murine lymphocytes. *Gene* 169: 203-207.
3. Imbalzano, A.N. 1998. Energy-dependent chromatin remodelers: complex complexes and their components. *Crit. Rev. Eukaryot. Gene Expr.* 8: 225-255.
4. Jones, P.L., et al. 1998. Methylated DNA and MeCP2 recruit histone deacetylase to repress transcription. *Nat. Genet.* 19: 187-191.
5. Wade, P.A., et al. 1998. A multiple subunit Mi-2 histone deacetylase from *Xenopus laevis* co-fractionates with an associated SNF2 superfamily ATPase. *Curr. Biol.* 8: 843-846.
6. Jones, P.L., et al. 1999. Relationships between chromatin organization and DNA methylation in determining gene expression. *Semin. Cancer Biol.* 9: 339-347.
7. Geiman, T.M., et al. 2000. Lsh, an SNF2/helicase family member, is required for proliferation of mature T lymphocytes. *Prod. Natl. Acad. Sci. USA* 97: 4772-4777.

CHROMOSOMAL LOCATION

Genetic locus: HELLS (human) mapping to 10q23.33; Hells (mouse) mapping to 19 C3.

SOURCE

Lsh (22) is a mouse monoclonal antibody raised against amino acids 18-130 of Lsh of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Lsh (22) is recommended for detection of Lsh of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Lsh siRNA (h): sc-38033, Lsh siRNA (m): sc-38034, Lsh shRNA Plasmid (h): sc-38033-SH, Lsh shRNA Plasmid (m): sc-38034-SH, Lsh shRNA (h) Lentiviral Particles: sc-38033-V and Lsh shRNA (m) Lentiviral Particles: sc-38034-V.

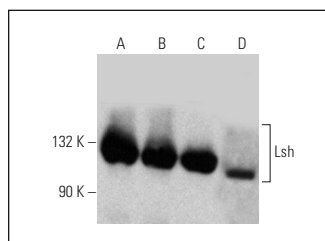
Molecular Weight of Lsh: 100 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or NIH/3T3 whole cell lysate: sc-2210.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA




Lsh (22): sc-136459. Western blot analysis of Lsh expression in Jurkat (A), CCRF-CEM (B), HeLa (C) and NIH/3T3 (D) whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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



CONJUGATES

See **Lsh (H-4): sc-46665** for Lsh antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.