HATH-6 (A-19): sc-101970



The Power to Question

BACKGROUND

HATH-6, also known as atonal homolog 8 (ATOH8), is a 321 amino acid putative transcription factor. Localized to the nucleus, HATH-6 is expressed in kidney, lung, liver, pancreas, heart and the endothelium of umbilical vessels. HATH-6 is thought to participate in podocyte development in the kidney and may be involved in specification and differentiation of brain neuronal cell lineages. As a transcription factor, HATH-6 contains one basic helix-loop-helix (bHLH) domain. In order to efficiently bind to DNA, HATH-6 must be bound to another bHLH domain containing protein. HATH-6 exists as two isoforms produced by alternative splicing.

REFERENCES

- 1. Murre, C., McCaw, P.S. and Baltimore, D. 1989. A new DNA binding and dimerization motif in immunoglobulin enhancer binding, daughterless, MyoD, and Myc proteins. Cell 56: 777-783.
- 2. Kato, G.J. and Dang, C.V. 1992. Function of the c-Myc oncoprotein. FASEB J. 6: 3065-3072.
- 3. Inoue, C., Bae, S.K., Takatsuka, K., Inoue, T., Bessho, Y. and Kageyama, R. 2001. Math6, a bHLH gene expressed in the developing nervous system, regulates neuronal versus glial differentiation. Genes Cells 6: 977-986.
- Ledent, V. and Vervoort, M. 2001. The basic helix-loop-helix protein family: comparative genomics and phylogenetic analysis. Genome Res. 11: 754-770.
- Ledent, V., Paquet, O. and Vervoort, M. 2002. Phylogenetic analysis of the human basic helix-loop-helix proteins. Genome Biol. 3: RESEARCH0030.
- Wasserman, S.M., Mehraban, F., Komuves, L.G., Yang, R.B., Tomlinson, J.E., Zhang, Y., Spriggs, F. and Topper, J.N. 2002. Gene expression profile of human endothelial cells exposed to sustained fluid shear stress. Physiol. Genomics 12: 13-23.
- 7. Ross, M.D., Martinka, S., Mukherjee, A., Sedor, J.R., Vinson, C. and Bruggeman, L.A. 2006. MATH-6 expression during kidney development and altered expression in a mouse model of glomerulosclerosis. Dev. Dyn. 235: 3102-3109.
- Kautz, L., Meynard, D., Monnier, A., Darnaud, V., Bouvet, R., Wang, R.H., Deng, C., Vaulont, S., Mosser, J., Coppin, H. and Roth, M.P. 2008. Iron regulates phosphorylation of Smad1/5/8 and gene expression of BMP-6, Smad7, Id1, and Atoh8 in the mouse liver. Blood 112: 1503-1509.

CHROMOSOMAL LOCATION

Genetic locus: ATOH8 (human) mapping to 2p11.2.

SOURCE

HATH-6 (A-19) is a purified rabbit polyclonal antibody raised against HATH-6 of human origin.

PRODUCT

Each vial contains 100 μg IgG in 1.0 ml PBS with <0.1% sodium azide, 0.1% gelatin and <0.02% sucrose.

APPLICATIONS

HATH-6 (A-19) is recommended for detection of HATH-6 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for HATH-6 siRNA (h): sc-94577, HATH-6 shRNA Plasmid (h): sc-94577-SH and HATH-6 shRNA (h) Lentiviral Particles: sc-94577-V.

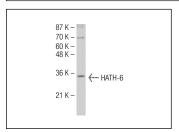
Molecular Weight of HATH-6: 35 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

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).

DATA



HATH-6 (A-19): sc-101970. Western blot analysis of HATH-6 expression in Jurkat whole cell lysate.

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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com