SANTA CRUZ BIOTECHNOLOGY, INC.

HATH-6 (G-12): sc-132708

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.
4. Ledent, V. and Vervoort, M. 2001. The basic helix-loop-helix protein family: comparative genomics and phylogenetic analysis. Genome Res. 11: 754-770.
5. Ledent, V., Paquet, O. and Vervoort, M. 2002. Phylogenetic analysis of the human basic helix-loop-helix proteins. Genome Biol. 3: RESEARCH0030.
6. 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.
8. 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; Atoh8 (mouse) mapping to 6 C1.

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.

SOURCE

HATH-6 (G-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HATH-6 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.

Blocking peptide available for competition studies, sc-132708 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-132708 X, 200 µg/0.1 ml.

APPLICATIONS

HATH-6 (G-12) is recommended for detection of HATH-6 isoforms 1 and 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with HATH-1.

Suitable for use as control antibody for HATH-6 siRNA (h): sc-94577, HATH-6 siRNA (m): sc-145899, HATH-6 shRNA Plasmid (h): sc-94577-SH, HATH-6 shRNA Plasmid (m): sc-145899-SH, HATH-6 shRNA (h) Lentiviral Particles: sc-94577-V and HATH-6 shRNA (m) Lentiviral Particles: sc-145899-V.

HATH-6 (G-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of HATH-6: 35 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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