

ASH1L (K-14): sc-104088

BACKGROUND

ASH1L (absent small and homeotic disks protein 1 homolog) is a 2,969 amino acid protein encoded by the human gene ASH1L. ASH1L belongs to the histone-lysine methyltransferase family (SET2 subfamily) and contains three AT hook DNA-binding domains, one AWS domain, one BAH domain, one bromo domain, one PHD-type zinc finger, one post-SET domain and one SET domain. It is a widely expressed nuclear protein with highest expression found in brain, heart and kidney. ASH1L is a histone methyltransferase and is believed to methylate Lys 4 of Histone H3, which is a specific tag for epigenetic transcriptional activation.

REFERENCES

1. Nakamura, T., Blechman, J., Tada, S., Rozovskaia, T., Itoyama, T., Bullrich, F., Mazo, A., Croce, C.M., Geiger, B. and Canaani, E. 2000. huASH1 protein, a putative transcription factor encoded by a human homologue of the *Drosophila* ash1 gene, localizes to both nuclei and cell-cell tight junctions. Proc. Natl. Acad. Sci. USA 97: 7284-7289.
2. Lachner, M. and Jenuwein, T. 2002. The many faces of histone lysine methylation. Curr. Opin. Cell Biol. 14: 286-298.
3. Schotta, G., Lachner, M., Peters, A.H. and Jenuwein, T. 2004. The indexing potential of histone lysine methylation. Novartis Found. Symp. 259: 22-37.
4. Online Mendelian Inheritance in Man, OMIM[™]. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 607999. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Vakoc, C.R., Sachdeva, M.M., Wang, H. and Blobel, G.A. 2006. Profile of histone lysine methylation across transcribed mammalian chromatin. Mol. Cell. Biol. 26: 9185-9195.
6. Gregory, G.D., Vakoc, C.R., Rozovskaia, T., Zheng, X., Patel, S., Nakamura, T., Canaani, E. and Blobel, G.A. 2007. Mammalian ASH1L is a histone methyltransferase that occupies the transcribed region of active genes. Mol. Cell. Biol. 27: 8466-8479.

CHROMOSOMAL LOCATION

Genetic locus: ASH1L (human) mapping to 1q22; Ash1l (mouse) mapping to 3 F1.

SOURCE

ASH1L (K-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within the DNA binding domain of ASH1L 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-104088 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-104088 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

ASH1L (K-14) is recommended for detection of ASH1L 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 family members ASH1 or ASH2L.

ASH1L (K-14) is also recommended for detection of ASH1L in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for ASH1L siRNA (h): sc-88574, ASH1L siRNA (m): sc-105100, ASH1L shRNA Plasmid (h): sc-88574-SH, ASH1L shRNA Plasmid (m): sc-105100-SH, ASH1L shRNA (h) Lentiviral Particles: sc-88574-V and ASH1L shRNA (m) Lentiviral Particles: sc-105100-V.

ASH1L (K-14) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of ASH1L: 332 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.

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.



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Satisfaction
Guaranteed

Try **ASH1L (ASH5H03): sc-81052**, our highly recommended monoclonal alternative to ASH1L (K-14).