SANTA CRUZ BIOTECHNOLOGY, INC.

ASXL1 (6E2): sc-293204

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

ASXL1 (additional sex combs-like protein 1) is a 1,541 amino acid protein encoded by the human gene ASXL1. ASXL1 belongs to the Asx family and contains one PHD-type zinc finger. It also contains one Leu-Xaa-Xaa-Leu-Leu (LXXLL) motif, which may be required for an association with nuclear receptors. ASXL1 is believed to be a Polycomb group (PcG) protein. PcG proteins act by forming multiprotein complexes, which are required to maintain the transcriptionally repressive state of homeotic genes throughout development. PcG proteins are not required to initiate repression, but to maintain it during later stages of development. They probably act via methylation of histones, rendering chromatin heritably changed in its expressibility. ASXL1 is a widely expressed nuclear protein with highest expression found in testis.

REFERENCES

1. Fisher, C.L., et al. 2003. A human homolog of additional sex combs, additional sex combs-like 1, maps to chromosome 20q11. Gene 306: 115-126.
2. Katoh, M. and Katoh, M. 2003. Identification and characterization of ASXL2 gene in silico. Int. J. Oncol. 23: 845-850.
3. Katoh, M. and Katoh, M. 2004. Identification and characterization of ASXL3 gene in silico. Int. J. Oncol. 24: 1617-1622.
4. Katoh, M. and Katoh, M. 2004. Identification and characterization of human CXXC10 gene in silico. Int. J. Oncol. 25: 1193-1199.
5. Fisher, C.L., et al. 2006. Characterization of ASXL1, a murine homolog of additional sex combs, and analysis of the Asx-like gene family. Gene 369: 109-118.
6. Cho, Y.S., et al. 2006. Additional sex comb-like 1 (ASXL1), in cooperation with SRC-1, acts as a ligand-dependent coactivator for retinoic acid receptor. J. Biol. Chem. 281: 17588-17598.

CHROMOSOMAL LOCATION

Genetic locus: ASXL1 (human) mapping to 20q11.21; Asxl1 (mouse) mapping to 2 H1.

SOURCE

ASXL1 (6E2) is a mouse monoclonal antibody raised against amino acids 1-84 representing full length ASXL1 of human origin.

PRODUCT

Each vial contains 100 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.

PROTOCOLS

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

APPLICATIONS

ASXL1 (6E2) is recommended for detection of ASXL1 of mouse, rat and 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ASXL1 siRNA (h): sc-72572, ASXL1 siRNA (m): sc-141310, ASXL1 shRNA Plasmid (h): sc-72572-SH, ASXL1 shRNA Plasmid (m): sc-141310-SH, ASXL1 shRNA (h) Lentiviral Particles: sc-72572-V and ASXL1 shRNA (m) Lentiviral Particles: sc-141310-V.

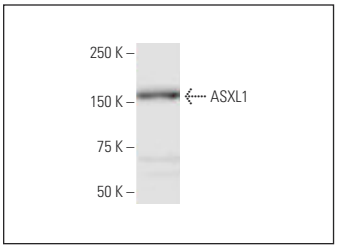
Molecular Weight of ASXL1: 166 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206.

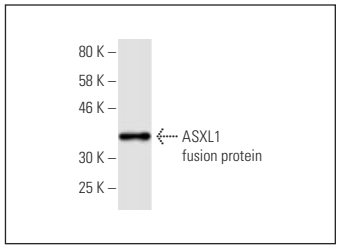
RECOMMENDED SUPPORT REAGENTS

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, UltraCruz® Blocking Reagent: sc-516214 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



ASXL1 (6E2): sc-293204. Western blot analysis of ASXL1 expression in MCF7 whole cell lysate.



ASXL1 (6E2): sc-293204. Western blot analysis of human recombinant ASXL1 fusion protein.

SELECT PRODUCT CITATIONS

1. Wu, Z.J., et al. 2018. CRISPR/Cas9-mediated ASXL1 mutations in U937 cells disrupt myeloid differentiation. Int. J. Oncol. 52: 1209-1223.
2. Zhang, Y., et al. 2018. BAP1 links metabolic regulation of ferroptosis to tumour suppression. Nat. Cell Biol. 20: 1181-1192.
3. Kweon, S.M., et al. 2019. An adversarial DNA N^6-methyladenine-sensor network preserves Polycomb silencing. Mol. Cell 74: 1138-1147.e6.

RESEARCH USE

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