HJURP (S-14): sc-168091



The Power to Question

BACKGROUND

HJURP (holliday junction recognition protein), also known as FAKTS, URLC9 or hFLEG1, is a 748 amino acid protein that is expressed in thymus, placenta, small intestine, liver, skeletal muscle, bone marrow and colon. When Histone H3-like variant CENP-A nucleosomes are assembled, HJURP localizes in centromeres during late telophase and early G_1 phase, and localizes to the nucleolus during S phase. Considered a centromeric protein, HJURP plays a central role in the incorporation and maintenance of CENP-A at centromeres. HJURP also acts as a specific chaperone for CENP-A and is required for the incorporation of newly synthesized CENP-A molecules into nucleosomes at replicated centromeres. HJURP is considered an indispensable factor for chromosomal stability in immortalized cancer cells and is a potential novel therapeutic target for the development of anticancer drugs.

REFERENCES

- Foltz, D.R., Jansen, L.E., Black, B.E., Bailey, A.O., Yates, J.R. and Cleveland, D.W. 2006. The human CENP-A centromeric nucleosome-associated complex. Nat. Cell Biol. 8: 458-469.
- Kato, T., Sato, N., Hayama, S., Yamabuki, T., Ito, T., Miyamoto, M., Kondo, S., Nakamura, Y. and Daigo, Y. 2007. Activation of Holliday junction recognizing protein involved in the chromosomal stability and immortality of cancer cells. Cancer Res. 67: 8544-8553.
- Black, B.E., Jansen, L.E., Maddox, P.S., Foltz, D.R., Desai, A.B., Shah, J.V. and Cleveland, D.W. 2007. Centromere identity maintained by nucleosomes assembled with Histone H3 containing the CENP-A targeting domain. Mol. Cell. 25: 309-322.
- 4. Black, B.E. and Bassett, E.A. 2008. The histone variant CENP-A and centromere specification. Curr. Opin. Cell Biol. 20: 91-100.
- Foltz, D.R., Jansen, L.E., Bailey, A.O., Yates, J.R., Bassett, E.A., Wood, S., Black, B.E. and Cleveland, D.W. 2009. Centromere-specific assembly of CENP-A nucleosomes is mediated by HJURP. Cell 137: 472-484.
- Dunleavy, E.M., Roche, D., Tagami, H., Lacoste, N., Ray-Gallet, D., Nakamura, Y., Daigo, Y., Nakatani, Y. and Almouzni-Pettinotti, G. 2009. HJURP is a cell-cycle-dependent maintenance and deposition factor of CENP-A at centromeres. Cell 137: 485-497.
- Sanchez-Pulido, L., Pidoux, A.L., Ponting, C.P. and Allshire, R.C. 2009. Common ancestry of the CENP-A chaperones Scm3 and HJURP. Cell 137: 1173-1174.
- 8. Bernad, R., Sánchez, P. and Losada, A. 2009. Epigenetic specification of centromeres by CENP-A. Exp. Cell Res. 315: 3233-3241.
- 9. Shuaib, M., Ouararhni, K., Dimitrov, S. and Hamiche, A. 2010. HJURP binds CENP-A via a highly conserved N-terminal domain and mediates its deposition at centromeres. Proc. Natl. Acad. Sci. USA 107: 1349-1354.

CHROMOSOMAL LOCATION

Genetic locus: HJURP (human) mapping to 2q37.1.

RESEARCH USE

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

SOURCE

HJURP (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of HJURP 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-168091 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HJURP (S-14) is recommended for detection of HJURP of 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).

Suitable for use as control antibody for HJURP siRNA (h): sc-94530, HJURP shRNA Plasmid (h): sc-94530-SH and HJURP shRNA (h) Lentiviral Particles: sc-94530-V.

Molecular Weight of HJURP: 83 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat lgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat lgG-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 lgG-FITC: sc-2024 (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.

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**