SANTA CRUZ BIOTECHNOLOGY, INC.

SLU7 (N-18): sc-10828

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

In order to produce correctly spliced messenger RNA, two catalytic splicing steps are required. After catalytic step I, a major remodeling of the spliceosome occurs to establish the active site for step II. During the second step of mRNA splicing, exon 1 attacks an adenine-guanine (AG) dinucleotide at the 3' splice site. SLU7, the human homolog of the yeast step II splice factor SLU7, is required for selection of the correct AG. Human SLU7 associates with the spliceosome late in the splicing pathway prior to recognition of the 3' splice site for step II. SLU7 depletion in HeLa nuclear extract reveals that SLU7 is required to hold exon 1 tightly within the spliceosome for attack on a prespecified AG.

REFERENCES

1. Frank, D., et al. 1992. An essential splicing factor, SLU7, mediates 3' splice site choice in yeast. Genes Dev. 6: 2112-2224.
2. Ansari, A., et al. 1995. SLU7 and a novel activity, SSF1, act during the PRP16-dependent step of yeast pre-mRNA splicing. EMBO J. 14: 4001-4009.
3. Brys, A., et al. 1996. Requirement for SLU7 in yeast pre-mRNA splicing is dictated by the distance between the branchpoint and the 3' splice site. RNA 2: 707-717.
4. Zhang, X., et al. 1997. Functional and physical interaction between the yeast splicing factors SLU7 and PRP18. Nucleic Acids Res. 25: 2146-2152.
5. Staley, J.P., et al. 1998. Mechanical devices of the spliceosome: motors, clocks, springs, and things. Cell 92: 315-326.
6. Chua, K., et al. 1999. The RNA splicing factor hSLU7 is required for correct 3' splice-site choice. Nature 402: 207-210.
7. Chua, K., et al. 1999. Human step II splicing factor hSLU7 functions in restructuring the spliceosome between the catalytic steps of splicing. Genes Dev. 13: 841-850.
8. James, S.A., et al. 2002. How SLU7 and PRP18 cooperate in the second step of yeast pre-mRNA splicing. RNA 8: 1068-1077.

CHROMOSOMAL LOCATION

Genetic locus: SLU7 (human) mapping to 5q33.3.

SOURCE

SLU7 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of SLU7 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-10828 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-10828 X, 200 µg/0.1 ml.

APPLICATIONS

SLU7 (N-18) is recommended for detection of SLU7 of 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)], 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 SLU7 siRNA (h): sc-38372, SLU7 shRNA Plasmid (h): sc-38372-SH and SLU7 shRNA (h) Lentiviral Particles: sc-38372-V.

SLU7 (N-18) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

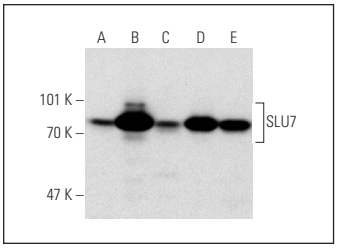
Molecular Weight of SLU7: 70 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, BJAB nuclear extract: sc-2145 or MCF7 nuclear extract: sc-2149.

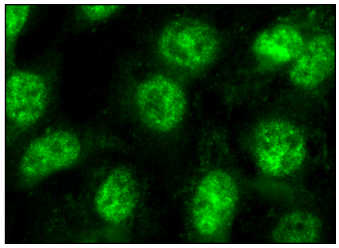
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



SLU7 (N-18): sc-10828. Western blot analysis of SLU7 expression in HeLa (**A**), BJAB (**B**), MCF7 (**C**), Y79 (**D**) and Hep G2 (**E**) nuclear extracts.



SLU7 (N-18): sc-10828. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization.

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.