

SLU7 (L-16): sc-10829

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. and Guthrie, C. 1992. An essential splicing factor, SLU7, mediates 3' splice site choice in yeast. *Genes Dev.* 6: 2112-2224.
2. Brys, A. and Schwer, B. 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.
3. Staley, J.P. and Guthrie, C. 1998. Mechanical devices of the spliceosome: motors, clocks, springs, and things. *Cell* 92: 315-326.
4. Chua, K. and Reed, R. 1999. The RNA splicing factor hSLU7 is required for correct 3' splice-site choice. *Nature* 402: 207-210.
5. Chua, K. and Reed, R. 1999. Human step II splicing factor hSLU7 functions in restructuring the spliceosome between the catalytic steps of splicing. *Genes Dev.* 13: 841-850.

CHROMOSOMAL LOCATION

Genetic locus: SLU7 (human) mapping to 5q33.3; Slu7 (mouse) mapping to 11 A5.

SOURCE

SLU7 (L-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near 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-10829 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-10829 X, 200 µg/0.1 ml.

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.

APPLICATIONS

SLU7 (L-16) is recommended for detection of SLU7 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

SLU7 (L-16) is also recommended for detection of SLU7 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for SLU7 siRNA (h): sc-38372, SLU7 siRNA (m): sc-38373, SLU7 shRNA Plasmid (h): sc-38372-SH, SLU7 shRNA Plasmid (m): sc-38373-SH, SLU7 shRNA (h) Lentiviral Particles: sc-38372-V and SLU7 shRNA (m) Lentiviral Particles: sc-38373-V.

SLU7 (L-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

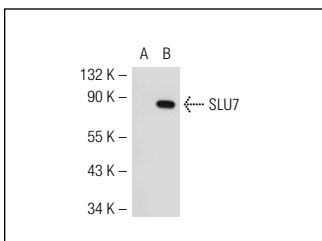
Molecular Weight of SLU7: 70 kDa.

Positive Controls: SLU7 (h): 293 Lysate: sc-111150, HeLa nuclear extract: sc-2120 or K-562 nuclear extract: sc-2130.

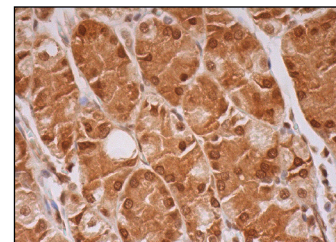
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



SLU7 (L-16): sc-10829. Western blot analysis of SLU7 expression in non-transfected: sc-110760 (A) and human SLU7 transfected: sc-111150 (B) 293 whole cell lysates.



SLU7 (L-16): sc-10829. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lower stomach tissue showing cytoplasmic and nuclear staining of glandular cells.

RESEARCH USE

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