SANTA CRUZ BIOTECHNOLOGY, INC.

# SLU7 (B-11): sc-376985

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.


## CHROMOSOMAL LOCATION

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

## SOURCE

SLU7 (B-11) is a mouse monoclonal antibody raised against amino acids 241-420 mapping within an internal region of SLU7 of human origin.

## PRODUCT

Each vial contains 200 µg $IgG_1$ kappa light chain 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-376985 X, 200 µg/0.1 ml.

SLU7 (B-11) is available conjugated to agarose (sc-376985 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-376985 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376985 PE), fluorescein (sc-376985 FITC), Alexa Fluor® 488 (sc-376985 AF488), Alexa Fluor® 546 (sc-376985 AF546), Alexa Fluor® 594 (sc-376985 AF594) or Alexa Fluor® 647 (sc-376985 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376985 AF680) or Alexa Fluor® 790 (sc-376985 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.



## APPLICATIONS

SLU7 (B-11) is recommended for detection of SLU7 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 (B-11) is also recommended for detection of SLU7 in additional species, including canine, bovine and porcine.

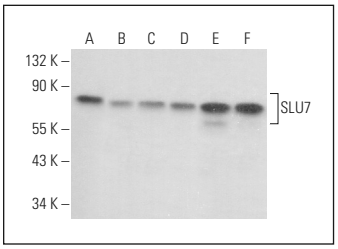
Suitable for use as control antibody for SLU7 siRNA (h): sc-38372, SLU7 siRNA (m): sc-38373, SLU7 shRNA Plasmid (h): sc-38372-SH, SLU7 shRNA Plasmid (m): sc-38373-SH, SLU7 shRNA (h) Lentiviral Particles: sc-38372-V and SLU7 shRNA (m) Lentiviral Particles: sc-38373-V.

SLU7 (B-11) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

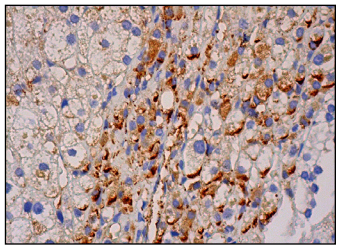
Molecular Weight of SLU7: 70 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, MDA-MB-231 cell lysate: sc-2232 or COLO 205 whole cell lysate: sc-364177.

## DATA




SLU7 (B-11): sc-376985. Western blot analysis of SLU7 expression in MCF7 (**A**), MDA-MB-231 (**B**), COLO 205 (**C**), RAW 264.7 (**D**), PC-12 (**E**) and KNRK (**F**) whole cell lysates.



SLU7 (B-11): sc-376985. Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing cytoplasmic staining of glandular cells.

## SELECT PRODUCT CITATIONS


1. Obuca, M., et al. 2022. Retinitis pigmentosa-linked mutation in DHX38 modulates its splicing activity. PLoS ONE 17: e0265742.


## 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.

## PROTOCOLS

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