

# SRp55 (16H3): sc-57954

## BACKGROUND

Pre-mRNA splicing is a critical step in the posttranscriptional regulation of gene expression. Several protein complexes are involved in proper mRNA splicing and transport. Serine/arginine-rich (SR) proteins SRp55, SRp30c and HtrA2β1 regulate exon 2 and 10 splicing. The first two inhibit both exons and SRp55 also plays a role in exon inclusion after the removal of intronic splicing silencer sequences. SRp55 plays a major role in maintaining normal FGFR1 α-exon inclusion.

## REFERENCES

1. Ring, H.Z., et al. 1994. The SR protein B52/SRp55 is essential for *Drosophila* development. *Mol. Cell. Biol.* 14: 7499-7506.
2. Nagel, R.J., et al. 1998. Specific binding of an exonic splicing enhancer by the pre-mRNA splicing factor SRp55. *RNA* 4: 11-23.

## SOURCE

SRp55 (16H3) is a mouse monoclonal antibody raised against purified dephosphorylated SRp55 of bovine origin and subsequently with full-length recombinant SRp55 (B52) of *Drosophila* origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SRp55 (16H3) is available conjugated to agarose (sc-57954 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-57954 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-57954 PE), fluorescein (sc-57954 FITC), Alexa Fluor® 488 (sc-57954 AF488), Alexa Fluor® 546 (sc-57954 AF546), Alexa Fluor® 594 (sc-57954 AF594) or Alexa Fluor® 647 (sc-57954 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-57954 AF680) or Alexa Fluor® 790 (sc-57954 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

SRp55 (16H3) is recommended for detection of SRp20, SRp40, SRp55, SRp75 of mouse, rat, human and *Drosophila melanogaster* 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); also binds a conserved epitope ("alternating arginine") present on approximately 25 nuclear antigens.

SRp55 (16H3) is also recommended for detection of SRp20, SRp40, SRp55, SRp75 in additional species, including bovine.

Molecular Weight of unphosphorylated SRp55: 40 kDa.

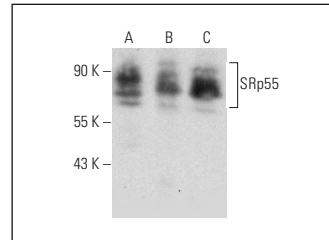
Molecular Weight of phosphorylated SRp55: 55 kDa.

Positive Controls: NIH/3T3 nuclear extract: sc-2138, MCF7 nuclear extract: sc-2149 or 3611-RF nuclear extract: sc-2143.

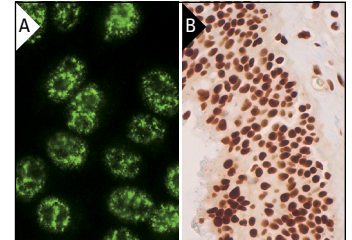
## RECOMMENDED SUPPORT REAGENTS

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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



SRp55 (16H3): sc-57954. Western blot analysis of SRp55 expression in MCF7 (A), NIH/3T3 (B) and 3611-RF (C) nuclear extracts.



SRp55 (16H3): sc-57954. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human nasopharynx tissue showing nuclear staining of respiratory epithelial cells (B).

## SELECT PRODUCT CITATIONS

1. Liang, L.M., et al. 2021. Splicing factor SRSF6 mediates pleural fibrosis. *JCI Insight* 6: 146197.
2. Baba, T., et al. 2021. Cleaved PGAM5 dephosphorylates nuclear serine/arginine-rich proteins during mitophagy. *Biochim. Biophys. Acta Mol. Cell Res.* 1868: 119045.

## 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](http://www.scbt.com) for detailed protocols and support products.