

SAP 114 (V-20): sc-68785

BACKGROUND

SAP 114 (spliceosome associated protein 114), also known as PRP21, PRPF21, SF3A120 or SF3A1, is a 793 amino acid ubiquitously expressed nuclear protein belonging to the SURP protein family and contains 2 SURP motif repeats and one ubiquitin-like domain. SAP 114 is a subunit of the SF3A splicing factor, a heterotrimeric complex comprised of three subunits that act in tandem to mediate the binding of U2 snRNP to the branchpoint sequence (BPS) in pre-mRNA. The SF3A complex is necessary for the conversion of 15S U2 snRNP into the active 17S protein that is directly involved pre-mRNA splicing events. Functioning as the first subunit of the complex, SAP 114 interacts with subunit 2 (SAP 62) and subunit 3 (SAP 61) via its SURP motifs. SAP 114 is also thought to be involved in the assembly of the E complex, a critical regulator of cell cycle progression from G₁ into S phase in mammalian cells.

REFERENCES

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- Rush, J., et al. 2005. Immunoaffinity profiling of tyrosine phosphorylation in cancer cells. *Nat. Biotechnol.* 23: 94-101.
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CHROMOSOMAL LOCATION

Genetic locus: SF3A1 (human) mapping to 22q12.2; Sf3a1 (mouse) mapping to 11 A1.

SOURCE

SAP 114 (V-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SAP 114 of human origin.

RESEARCH USE

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

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-68785 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-68785 X, 200 µg/0.1 ml.

APPLICATIONS

SAP 114 (V-20) is recommended for detection of SAP 114 of mouse, rat and 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).

SAP 114 (V-20) is also recommended for detection of SAP 114 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for SAP 114 siRNA (h): sc-62974, SAP 114 siRNA (m): sc-62975, SAP 114 shRNA Plasmid (h): sc-62974-SH, SAP 114 shRNA Plasmid (m): sc-62975-SH, SAP 114 shRNA (h) Lentiviral Particles: sc-62974-V and SAP 114 shRNA (m) Lentiviral Particles: sc-62975-V.

SAP 114 (V-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of SAP 114: 120 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or K-562 whole cell lysate: sc-2203.

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) 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.

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.