

# U2AF65 (C-8): sc-166695



The Power to Question

## BACKGROUND

SF3b is a U2 snRNP-associated protein complex essential for spliceosome assembly. SF3b contains the spliceosomal proteins SAPs 49, 130, 145 and 155. SAPs 130, 145 and 155 associate with one another to form a complex that is present in HeLa nuclear extracts. SAPs 49 and 145 are known to interact directly with each other. Unexpectedly, the SAP 49-SAP 145 protein-protein interaction requires the amino-terminus of SAP 49, which contains two RNA-recognition motifs. SAP 49 and SAP 145 interact directly with both U2 snRNP and the pre-mRNA, which suggests that this protein complex plays a role in tethering U2 snRNP to the branch site. U2AF recruits SAP 49 to the branch point sequence during the initial steps of spliceosome assembly. U2AF exists as a heterodimer consisting of U2AF65 and U2AF35 and is required for splicing *in vivo*.

## REFERENCES

1. Zamore, P.D. and Green, M.R. 1989. Identification, purification and biochemical characterization of U2 small nuclear ribonucleoprotein auxiliary factor. *Proc. Natl. Acad. Sci. USA* 86: 9243-9247.
2. Kanaar, R., et al. 1993. The conserved pre-mRNA splicing factor U2AF from *Drosophila*: requirement for viability. *Science* 262: 569-573.

## CHROMOSOMAL LOCATION

Genetic locus: U2AF2 (human) mapping to 19q13.42; U2af2 (mouse) mapping to 7 A1.

## SOURCE

U2AF65 (C-8) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of U2AF65 of human 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.

## APPLICATIONS

U2AF65 (C-8) is recommended for detection of U2AF65 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

U2AF65 (C-8) is also recommended for detection of U2AF65 in additional species, including equine and bovine.

Suitable for use as control antibody for U2AF65 siRNA (h): sc-37667, U2AF65 siRNA (m): sc-37668, U2AF65 shRNA Plasmid (h): sc-37667-SH, U2AF65 shRNA Plasmid (m): sc-37668-SH, U2AF65 shRNA (h) Lentiviral Particles: sc-37667-V and U2AF65 shRNA (m) Lentiviral Particles: sc-37668-V.

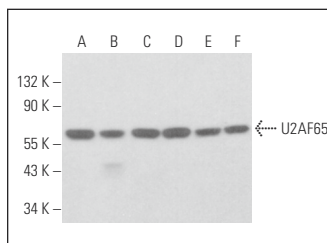
Molecular Weight of U2AF65: 65 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132 or Hep G2 cell lysate: sc-2227 or HeLa nuclear extract: sc-2120.

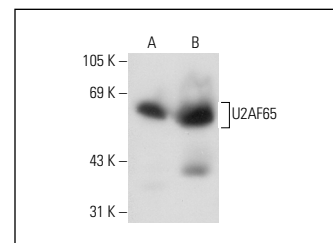
## RECOMMENDED SUPPORT REAGENTS

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.

## DATA



U2AF65 (C-8): sc-166695. Western blot analysis of U2AF65 expression in KNRK (A), SK-N-SH (B), Hep G2 (C), IMR-32 (D) and HEK293 (E) whole cell lysates and HeLa nuclear extract (F).



U2AF65 (C-8): sc-166695. Western blot analysis of U2AF65 expression in HeLa (A) and Jurkat (B) nuclear extracts.

## SELECT PRODUCT CITATIONS

1. Yi, J., et al. 2017. JMJD6 and U2AF65 co-regulate alternative splicing in both JMJD6 enzymatic activity dependent and independent manner. *Nucleic Acids Res.* 45: 3503-3518.
2. Lernoux, M., et al. 2020. Novel HDAC inhibitor MAKV-8 and imatinib synergistically kill chronic myeloid leukemia cells via inhibition of Bcr-Abl/Myc-signaling: effect on imatinib resistance and stem cells. *Clin. Epigenetics* 12: 69.
3. Zhang, Y., et al. 2023. Disruption of the nuclear localization signal in RBM20 is causative in dilated cardiomyopathy. *JCI Insight* 8: e170001.

## 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.