Snurportin-1 (C-1): sc-390155

**BACKGROUND**

Snurportin-1, also known as SNUPN, KPNBL or RNUT1 (RNA U transporter 1), is a nuclear import adaptor protein belonging to the Snurportin family. Localizing to the cytoplasm and nucleus, Snurportin-1 contains an N-terminal IBB domain and a trimethylguanosine (m3G)-cap binding domain. It specifically binds the terminal 2,2,7-m3G-cap at the 5’ end of U snRNPs and functions to transport U snRNPs into the nucleus via an association with Importin β. The nuclear import of U snRNPs is an important step in the maturation of the spliceosome. The complex formed between Snurportin-1, U snRNP and Importin β is essential for nuclear import. Depending on the U snRNP (U1 or U2), Snurportin-1 may localize to Cajal bodies after nuclear import. In the nucleus, CRM1 binds to Snurportin-1 and is responsible for the recycling of Snurportin-1 back to the cytoplasm for additional rounds of U snRNP import.

**REFERENCES**

2. Mouaikel, J., et al. 2003. Interaction between the small-nuclear-RNA cap domain and a trimethylguanosine (m3G)-cap binding domain. It specifically binds the terminal 2,2,7-m3G-capat the 5'end ofU snRNPs and functionsto transportU snRNPs intothe nucleus via an association with Impo rtin β. The nuclear import of U snRNPs is an important step in the maturation of the spliceosome. The complex formed between Snurportin-1, U snRNP and Importin β is essential for nuclear import. Depending on the U snRNP (U1 or U2), Snurportin-1 may localize to Cajal bodies after nuclear import. In the nucleus, CRM1 binds to Snurportin-1 and is responsible for the recycling of Snurportin-1 back to the cytoplasm for additional rounds of U snRNP import.

**PRODUCT**

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

Snurportin-1 (C-1) is recommended for detection of Snurportin-1 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).

**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, 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 m-IgGκ BP-RTC: 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**

Snurportin-1 (C-1): sc-390155. Western blot analysis of Snurportin-1 expression in IMR-32 (A), HeLa (B) and Jurkat (C) whole cell lysates and IMR-32 (D) and HeLa (E) nuclear extracts.

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**SOURCE**

Snurportin-1 (C-1) is a mouse monoclonal antibody raised against amino acids 1-300 mapping to the N-terminus of Snurportin-1 of human origin.

**CHROMOSOMAL LOCATION**

Genetic locus: SNUPN (human) mapping to 15q24.2; Snupn (mouse) mapping to 9 B.

**RESEARCH USE**

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