

# TAP (G-12): sc-28377

## BACKGROUND

The constitutive transport element (CTE) of type D retroviruses serves as a signal of nuclear export for unspliced viral RNAs. TAP (also known as NXF1) mediates the export of CTE-containing simian type D retroviral RNAs through binding directly to the CTE. TAP is associated with a recognized mRNA export pathway and is a member of the multigene family of NXF proteins. NXF proteins belong to an evolutionarily conserved family of proteins, which are characterized by a leucine-rich-repeat domain (LRR) followed by a region known as the nuclear transport factor 2 (NTF2)-like domain.

## REFERENCES

1. Truant, R., et al. 1999. The human tap nuclear RNA export factor contains a novel transportin-dependent nuclear localization signal that lacks nuclear export signal function. *J. Biol. Chem.* 274: 32167-32171.
2. Herold, A., et al. 2000. TAP (NXF1) belongs to a multigene family of putative RNA export factors with a conserved modular architecture. *Mol. Cell Biol.* 20: 8996-9008.
3. Reddy, T.R., et al. 2000. Sam68, RNA helicase A and Tap cooperate in the post-transcriptional regulation of human immunodeficiency virus and type D retroviral mRNA. *Oncogene* 19: 3570-3575.
4. Guzik, B.W., et al. 2001. NXT1 (p15) is a crucial cellular cofactor in TAP-dependent export of intron-containing RNA in mammalian cells. *Mol. Cell Biol.* 21: 2545-2554.
5. Levesque, L., et al. 2001. RNA export mediated by tap involves NXT1-dependent interactions with the nuclear pore complex. *J. Biol. Chem.* 276: 44953-44962.
6. Ho, D.N., et al. 2002. The crystal structure and mutational analysis of a novel RNA-binding domain found in the human Tap nuclear mRNA export factor. *Proc. Natl. Acad. Sci. USA* 99: 1888-1893.
7. Blevins, M.B., et al. 2003. Complex formation among the RNA export proteins Nup98, Rae1/Gle2, and TAP. *J. Biol. Chem.* 278: 20979-20988.
8. Saito, K., et al. 2004. TAP/NXF1, the primary mRNA export receptor, specifically interacts with a neuronal RNA-binding protein HuD. *Biochem. Biophys. Res. Commun.* 321: 291-297.
9. Erkmann, J.A., et al. 2005. Nuclear export of metazoan replication-dependent histone mRNAs is dependent on RNA length and is mediated by TAP. *RNA* 11: 45-58.

## CHROMOSOMAL LOCATION

Genetic locus: NXF1 (human) mapping to 11q12.3.

## SOURCE

TAP (G-12) is a mouse monoclonal antibody raised against amino acids 1-120 of TAP 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

TAP (G-12) is recommended for detection of TAP of 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).

Suitable for use as control antibody for TAP siRNA (h): sc-38142, TAP shRNA Plasmid (h): sc-38142-SH and TAP shRNA (h) Lentiviral Particles: sc-38142-V.

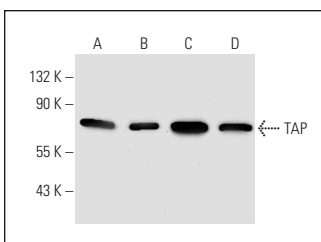
Molecular Weight of TAP: 73 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, A-431 nuclear extract: sc-2122 or K-562 nuclear extract: sc-2130.

## 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



TAP (G-12): sc-28377. Western blot analysis of TAP expression in HeLa (A), A-431 (B), Jurkat (C) and K-562 (D) nuclear extracts.

## SELECT PRODUCT CITATIONS

1. Malik, P., et al. 2012. Herpes simplex virus ICP27 protein directly interacts with the nuclear pore complex through Nup62, inhibiting host nucleocytoplasmic transport pathways. *J. Biol. Chem.* 287: 12277-12292.

## 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.