

TNPO3 Antibody
Catalog # ASC10689

Specification

TNP03 Antibody - Product Information

Application	WB
Primary Accession	Q9Y5L0
Other Accession	EAW83708 , 119604114
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	Predicted: 105 kDa
Application Notes	Observed: 99 kDa KDa TNPO3 antibody can be used for detection of TNPO3 by Western blot at 1 - 2 µg/mL.

TNPO3 Antibody - Additional Information

Gene ID **23534**
Target/Specificity
TNPO3;

Reconstitution & Storage

TNPO3 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions

TNPO3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

TNPO3 Antibody - Protein Information

Name TNPO3 {ECO:0000303|PubMed:23667635, ECO:0000312|HGNC:HGNC:17103}

Function

Importin, which transports target proteins into the nucleus (PubMed:10366588, PubMed:10713112, PubMed:11517331, PubMed:12628928, PubMed:24449914). Specifically mediates the nuclear import of splicing factor serine/arginine (SR) proteins, such as RBM4, SFRS1 and SFRS2, by recognizing phosphorylated SR domains (PubMed:10366588, PubMed:10713112, PubMed:11517331, PubMed:12628928, PubMed:24449914).

href="http://www.uniprot.org/citations/12628928" target="_blank">12628928, PubMed:24449914). Also mediates the nuclear import of serine/arginine (SR) protein CPSF6, independently of CPSF6 phosphorylation (PubMed:30916345, PubMed:31465518). The nuclear import process is regulated by the small GTPase Ran that partitions between cytoplasm and nucleus in the predominantly GDP- and GTP-bound form, respectively (PubMed:23878195, PubMed:24449914). Importin associates with target cargo proteins in the cytoplasm, and the competitive binding of GTP-bound Ran induces the release of cargos in the nucleus (PubMed:23878195, PubMed:24449914).

Cellular Location

Nucleus envelope. Cytoplasm. Note=Localizes to the nuclear envelope and annulate lamellae, which consists in stacks of endoplasmic reticulum membranes containing a high density of nuclear pores

Tissue Location

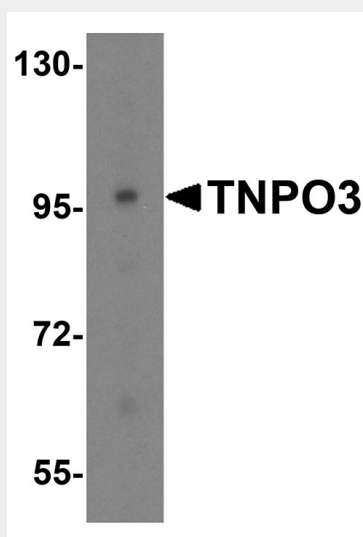
Expressed in skeletal muscle.

TNPO3 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

TNPO3 Antibody - Images



Western blot analysis of TNPO3 in HeLa cell lysate with TNPO3 antibody at 0.5 µg/mL.

TNPO3 Antibody - Background

TNPO3 Antibody: TNPO3 is a member of the importin beta/transportin family of nuclear import receptors and is specific for the essential splicing factors termed SR proteins, binding specifically and directly to the arginine/serine (RS)-rich domains of these proteins. Further experiments demonstrated that this interaction occurs only when these RS domains are phosphorylated. More recently, TNPO3 was identified as an HIV dependency factor (HDF) and that depletion of TNPO3 resulted in HIV inhibition after reverse transcription but before integration, suggesting that TNPO3 may be an important drug target in HIV treatment. At least three isoforms of TNPO3 are known to exist.

TNPO3 Antibody - References

Kataoka N, Bachorik JL and Dreyfuss G. Transportin-SR, a nuclear import receptor for SR proteins. J. Cell Biol.1999; 145:1145-52.

Lai M-C, Lin R-I, Huang S-Y, et al. A human importin-b family protein, transportin-SR2, interacts with the phosphorylated RS domain of SR proteins. J. Biol. Chem.2000; 275:7950-7.

Brass AL, Dykxhoorn DM, Benita Y, et al. Identification of host proteins required for HIV infection through a functional genomic screen. Science2008; 319:921-6.