



**SZABO  
SCANDIC**

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](http://linkedin.com/company/szaboscandic)



# Pan3 (m2): 293T Lysate: sc-122362

## BACKGROUND

Pan3 (PAB-dependent poly(A)-specific ribonuclease subunit 3) is a 741 amino acid cytoplasmic protein belonging to the protein kinase superfamily. Containing a protein kinase domain, Pan3 is a component of the Pan nucleic acid complex and recruits polyadenylate-binding protein, which in turn stimulates Pan2 nuclease activity. It is suggested that Pan3 may have a functional role in cytoplasmic mRNA decay. Pan3 exists as three isoforms produced by alternative splicing and the gene encoding Pan3 is located on human chromosome 13. Chromosome 13 houses over 400 genes, such as BRCA2 and RB1, and comprises nearly 4% of the human genome. Trisomy 13, also known as Patau syndrome, is deadly and the few who survive past one year suffer from permanent neurologic defects, difficulty eating and vulnerability to serious respiratory infections.

## REFERENCES

- Brown, C.E., Tarun, S.Z., Boeck, R. and Sachs, A.B. 1996. Pan3 encodes a subunit of the Pab1p-dependent poly(A) nuclease in *Saccharomyces cerevisiae*. Mol. Cell. Biol. 16: 5744-5753.
- Hammet, A., Pike, B.L. and Heierhorst, J. 2002. Posttranscriptional regulation of the Rad5 DNA repair gene by the Dun1 kinase and the Pan2-Pan3 poly(A)-nuclease complex contributes to survival of replication blocks. J. Biol. Chem. 277: 22469-22474.
- Uchida, N., Hoshino, S. and Katada, T. 2004. Identification of a human cytoplasmic poly(A) nuclease complex stimulated by poly(A)-binding protein. J. Biol. Chem. 279: 1383-1391.
- Funakoshi, Y., Doi, Y., Hosoda, N., Uchida, N., Osawa, M., Shimada, I., Tsujimoto, M., Suzuki, T., Katada, T. and Hoshino, S. 2007. Mechanism of mRNA deadenylation: evidence for a molecular interplay between translation termination factor eRF3 and mRNA deadenylases. Genes Dev. 21: 3135-3148.
- Siddiqui, N., Mangus, D.A., Chang, T.C., Palermino, J.M., Shyu, A.B. and Gehring, K. 2007. Poly(A) nuclease interacts with the C-terminal domain of polyadenylate-binding protein domain from poly(A)-binding protein. J. Biol. Chem. 282: 25067-25075.
- Ezzeddine, N., Chang, T.C., Zhu, W., Yamashita, A., Chen, C.Y., Zhong, Z., Yamashita, Y., Zheng, D. and Shyu, A.B. 2007. Human TOB, an antiproliferative transcription factor, is a poly(A)-binding protein-dependent positive regulator of cytoplasmic mRNA deadenylation. Mol. Cell. Biol. 27: 7791-7801.
- Zheng, D., Ezzeddine, N., Chen, C.Y., Zhu, W., He, X. and Shyu, A.B. 2008. Deadenylation is prerequisite for P-body formation and mRNA decay in mammalian cells. J. Cell Biol. 182: 89-101.
- Chen, C.Y., Zheng, D., Xia, Z. and Shyu, A.B. 2009. Ago-TNRC6 triggers microRNA-mediated decay by promoting two deadenylation steps. Nat. Struct. Mol. Biol. 16: 1160-1166.
- Schwede, A., Manful, T., Jha, B.A., Helbig, C., Bercovich, N., Stewart, M. and Clayton, C. 2009. The role of deadenylation in the degradation of unstable mRNAs in trypanosomes. Nucleic Acids Res. 37: 5511-5528.

## CHROMOSOMAL LOCATION

Genetic locus: Pan3 (mouse) mapping to 5 G3.

## PRODUCT

Pan3 (m2): 293T Lysate represents a lysate of mouse Pan3 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## APPLICATIONS

Pan3 (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Pan3 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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.