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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

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

TPN (m): 293T Lysate: sc-124233

BACKGROUND

TPN (tapasin, TPSN, TAPBP, transporter associated with antigen processing-A, TAP-A) is a type I membrane glycoprotein whose cDNA maps to chromosome 6p21 and encodes a 488 residue protein. Phosphorylation of TAP (transporter associated with antigen processing), a heterodimer consisting of TAP1 and TAP2, causes the assembly of high molecular weight complexes which contain TPN and facilitate the transfer of peptide antigens onto major histocompatibility complex (MHC) class I molecules. TPN mediates the association of newly assembled MHC class I molecules with TAP and controls antigen loading in the lumen of the endoplasmic reticulum. The cytoplasmic portion of TPN contains a double-lysine motif (-KKKAE-COOH) that is believed to mediate retention in the endoplasmic reticulum. TPN knockout mice show defects in the cell surface expression of MHC class I molecules, antigen presentation to CD8⁺ T cells, and other humoral responses, suggesting that TPN is important for retention of empty MHC class I molecules in the ER.

REFERENCES

1. Li, S., Sjogren, H.O., Hellman, U., Pettersson, R.F. and Wang, P. 1997. Cloning and functional characterization of a subunit of the transporter associated with antigen processing. *Proc. Natl. Acad. Sci. USA* 94: 8708-8713.
2. Ortman, B., Copeman, J., Lehner, P.J., Sadasivan, B., Herberg, J.A., Granda, A.G., Riddell, S.R., Tampe, R., Spies, T., Trowsdale, J. and Cresswell, P. 1997. A critical role for tapasin in the assembly and function of multimeric MHC class I-TAP complexes. *Science* 277: 1306-1309.
3. Li, S., et al. 1999. Peptide-bound major histocompatibility complex class I molecules associate with tapasin before dissociation from transporter associated with antigen processing. *J. Biol. Chem.* 274: 8649-8654.
4. Li, S., Paulsson, K.M., Sjogren, H.O. and Wang, P. 2000. Tapasin is required for efficient peptide binding to transporter associated with antigen processing. *J. Biol. Chem.* 275: 1581-1586.
5. Li, Y., Salter-Cid, L., Vitiello, A., Preckel, T., Lee, J.D., Angulo, A., Cai, Z., Peterson, P.A. and Yang, Y. 2000. Regulation of transporter associated with antigen processing by phosphorylation. *J. Biol. Chem.* 275: 24130-24135.
6. Granda, A.G., Golovina, T.N., Hamilton, S.E., Sriram, V., Spies, T., Brutkiewicz, R.R., Harty, J.T., Eisenlohr, L.C. and Van Kaer, L. 2000. Impaired assembly yet normal trafficking of MHC class I molecules in tapasin mutant mice. *Immunity* 13: 213-222.

CHROMOSOMAL LOCATION

Genetic locus: Tapbp (mouse) mapping to 17 B1.

PRODUCT

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

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.

APPLICATIONS

TPN (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive TPN 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.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.