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TAPBPL (42-L): sc-100290

BACKGROUND

TAPBPL (TAP binding protein-like), also known as TAPBPR or TAPBP-R, is a 468 amino acid protein that contains one Ig-like (immunoglobulin-like) C1-type domain and one Ig-like V-type domain. Localized to the membrane of both the endoplasmic reticulum (ER) and the microsome, TAPBPL is a single-pass type I membrane protein that is similar to TPN (also known as TAPBP or tapasin), a transmembrane glycoprotein that belongs to the variable-constant Ig superfamily. TPN functions to link the ER-associated antigen transporter TAP with major histocompatibility complex (MHC) class I molecules, thereby mediating peptide loading onto MHC proteins. Due to its similarity with TPN, TAPBPL is thought to play a role in antigen processing events within the ER.

REFERENCES

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2. Ortmann, B., et al. 1997. A critical role for tapasin in the assembly and function of multimeric MHC class I-TAP complexes. Science 277: 1306-1309.
3. Herberg, J.A., et al. 1998. Genomic analysis of the tapasin gene, located close to the TAP loci in the MHC. Eur. J. Immunol. 28: 459-467.
4. Mayer, W.E. and Klein, J. 2001. Is tapasin a modified MHC class I molecule? Immunogenetics 53: 719-723.
5. Teng, M.S., et al. 2002. A human TAPBP (TAPASIN)-related gene, TAPBP-R. Eur. J. Immunol. 32: 1059-1068.
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7. Rizvi, S.M. and Raghavan, M. 2006. Direct peptide-regulatable interactions between MHC class I molecules and tapasin. Proc. Natl. Acad. Sci. USA 103: 18220-18225.
8. Chambers, J.E., et al. 2008. Formation of a major histocompatibility complex class I tapasin disulfide indicates a change in spatial organization of the peptide-loading complex during assembly. J. Biol. Chem. 283: 1862-1869.

CHROMOSOMAL LOCATION

Genetic locus: TAPBPL (human) mapping to 12p13.31.

SOURCE

TAPBPL (42-L) is a mouse monoclonal antibody raised against recombinant TAPBPL of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

TAPBPL (42-L) is recommended for detection of TAPBPL of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for TAPBPL siRNA (h): sc-96046, TAPBPL shRNA Plasmid (h): sc-96046-SH and TAPBPL shRNA (h) Lentiviral Particles: sc-96046-V.

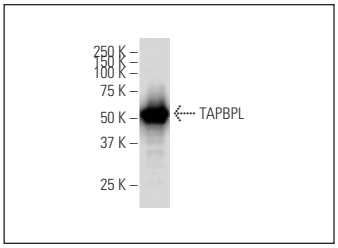
Molecular Weight of TAPBPL: 52 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201.

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).

DATA



TAPBPL (42-L): sc-100290. Western blot analysis of TAPBPL expression in A-431 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Harvey, I.B., et al. 2019. Molluscum contagiosum virus MC80 sabotages MHC-I antigen presentation by targeting tapasin for ER-associated degradation. PLoS Pathog. 15: e1007711.

STORAGE

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

PROTOCOLS

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