



D54 (h): 293 Lysate: sc-110549

BACKGROUND

The tumor protein D52 (TPD52) family consists of three members, TPD52, TPD52L1 (D53), and TPD52L2 (D54). These small coiled-coil motif bearing proteins interact in hetero- and homomeric fashion, and have been implicated in cell proliferation, apoptosis, and vesicle trafficking. The TPD52 gene maps to chromosome 8q12, and due to amplification, shows frequent overexpression in prostate and breast carcinomas. D54 is a 206 amino acid protein that is often co-expressed with TPD52 in the bone marrow of patients with ALL and AML, suggesting that it has the potential to play a role in malignancy. D54 interacts with MAL2, a member of the polarized machinery transport system that is required for transcytosis, a transporter pathway that is used to deliver membrane-bound cargo from perinuclear endosomes to the apical surface in a raft-dependent manner. There are three isoforms of D54 that are produced as a result of alternative splicing events.

REFERENCES

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2. Byrne, J.A., et al. 1998. Identification of homo- and heteromeric interactions between members of the breast carcinoma-associated D52 protein family using the yeast two-hybrid system. *Oncogene* 16: 873-881.
3. Sathasivam, P., et al. 2001. The role of the coiled-coil motif in interactions mediated by TPD52. *Biochem. Biophys. Res. Commun.* 288: 56-61.
4. Wilson, S.H., et al. 2001. Identification of MAL2, a novel member of the mal proteolipid family, through interactions with TPD52-like proteins in the yeast two-hybrid system. *Genomics* 76: 81-88.
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6. Rubin, M.A., et al. 2004. Overexpression, amplification, and androgen regulation of TPD52 in prostate cancer. *Cancer* 64: 3814-3822.
7. Tiacci, E., et al. 2005. Tumor protein D52 (TPD52): a novel B cell/plasma-cell molecule with unique expression pattern and Ca^{2+} -dependent association with Annexin VI. *Blood* 105: 2812-2820.
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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.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: TPD52L2 (human) mapping to 20q13.33.

PRODUCT

D54 (h): 293 Lysate represents a lysate of human D54 transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

D54 (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive D54 antibodies. Recommended use: 10-20 µl per lane.

Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

RESEARCH USE

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