anti-LPP

affinity purified rabbit antibody IG817

Lot: A01

data sheet 04/00 - catalog #: 0032-05



immunoGlobe Antikörpertechnik GmbH

Background information

Lipoma preferred partner (LPP) is encoded by the preferred fusion partner gene of the high mobility group protein HMGI-C.1 LPP is frequently affected by chromosomal translocations in a major group of soft tissue lipomas¹, as well as in a parosteal lipoma² and in pulmonary chondroid hamartomas.3 resulting fusion proteins comprise three DNA binding domains of HMGI-C fused to two or three C-terminal LIM domains of LPP and a reciprocal product, respectively. 1,3 Expression of a HMGI-C/LPP fusion protein causes malignant transformation of fibroblasts.

Similar to its relatives zyxin⁵ and TRIP6 (thyroid receptor interacting protein 6)⁶ / ZRP-1 (zyxinrelated protein 1)7, LPP consists of an N-terminal proline-rich domain followed by three C-terminal LIM domains (double zinc finger structures that are involved in protein-protein interactions). Like the cytoskeletal protein zyxin, LPP localizes to adhesions and cell-cell adherens focal junctions.8 LPP harbors a nuclear export signal and displays transcriptional activation capacity.

Antibody preparation and storage

100 µl of purified antibody in PBS containing 0.01% (w/v) NaN₃. Antibody concentration: 500 µg/ml. Vials have been overfilled by 10% to ensure complete recovery of the specified amount. Produced without Freund's Adjuvant. Short term storage at 4°C, stable for one year from date of shipment when stored at -20°C. Avoid repeated freezing and thawing! Do not store in "frost-free" freezers.

Antigen

The antibody was raised against a recombinant fusion protein comprising residues 1-109 of human LPP. Antibodies specific for LPP have been affinity purified on the antigen after proteolytic cleavage and removal of the fusion partner GST. Residual GST specific antibody activity is less than 5% of total activity (as assayed by immuno blotting).

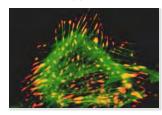
Species cross-reactivity

human, porcine, rat

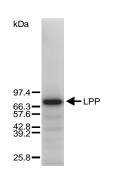
Applications

Western (immuno) blotting (0.5 µg/ml; 1:1000). Immunofluorescence (1-2 µg/ml; 1:250-1:500) of formaldehyde fixed cells and tissues. Immunoprecipitation.

All dilution numbers refer to the analysis of mammalian cells and tissues with intermediate to high levels of LPP expression and must be viewed as approximate.



Application antibody IG817 in the immunofluorescence analysis of a rat cardiac fibroblast. Double staining for LPP (red) and F-actin (green).



Immunoblotting total human skin fibroblast proteins using antibody IG817. Total cell protein (25 µg) was separated by SDS-PAGE and blotted onto nitrocellulose. The blot was incubated with 0.5 µg/ml IG817 followed by ¹²⁵I-protein A.

Positive control

Human skin fibroblast protein (100 µg), supplied at 1 mg/ml in SDS (Laemmli) sample buffer. Use 25 μl (25 μg) per lane for Western blotting.

Related products

- affinity purified rabbit antibody to profilin, 10 µg (catalog # 0022-01)
- monoclonal antibody IE273 to human VASP, 50 μg (catalog # 0016-05)
- rabbit antiserum M4 to human VASP, 100 µl (catalog # 0010-10)
- Pre-immune serum to M4, 25 µl (catalog # 0013-02)
- positive control: human platelet protein in SDS sample buffer, 500 µg (catalog # 8010-50)

References

Petit, M.M.R., Mols, R., Schoenmakers, E.F.P.M., Mandhal, N., Van de Ven, W.J.M. (1996). *LPP*, the

- preferred fusion partner Gene of *HMGIC* in lipomas, is a novel member of the LIM protein gene family. *Genomics* **36**: 118-129.
- [2] Petit, M.M., Swarts, S., Bridge, J.A., Van de Ven, W.J. (1998). Expression of reciprocal fusion transcripts of the HMGIC and LPP genes in parosteal lipoma. *Cancer Genet. Cytogenet.* 106: 1^8-23.
- [3] Rogalla, P., Kazmierczak, B., Meyer-Bolte, K., Tran, K.H., Bullerdiek, J. (1998). The t(3;12)(q27;q14-q15) with underlying HMGIC-LPP fusion is not determining an adipocytic phenotype. Genes Chromosomes Cancer 22:100-104.
- [4] Fedele, M., Berlingieri, M.T., Scala, S., Chiariotti, L., Viglietto, G., Rippel, V., Bullerdiek, J., Santoro, M., Fusco, A. (1998). Truncated and chimeric HMGI-C genes induce neoplastic transformation of NIH3T3 murine fibroblasts. Oncogene 17: 413-418.
- [5] Drees, B.E., Beckerle, M.C. (1999) Zyxin. In: Guidebook to the extracellular matrix, anchor, and adhesion proteins. Kreis. Th., Vale, R. (Eds.), 2nd ed., Oxford University Press, New York.

- [6] Lee, J.W., Choi, H.-S., Gyurist, J., Brent, R., Moore, D.D. (1995) Two classes of proteins dependent on either the presence or absence of thyroid hormone for interaction with the thyroid hormone receptor. *Mol. Endocrinol.* 9: 243-254.
- [7] Murthy, K.K., Clark, K., Fortin, Y., Shen., S.-H., Banville, D. (1999) ZRP-1, a zyxin-related protein, interacts with the second PDZ domain of the cytosolic protein tyrosine phosphatase hPTP1E. J. Biol. Chem. 274:20679-20687.
- [8] Petit, M.M.R., Fradelizi, J., Golsteyn, R.M., Ayoubi, T.A.Y., Menichi, B., Louvard, D., Van de Ven, W.J.M., Friederich, E. (2000). LPP, an actin cytoskeleton protein related to zyxin, harbors a nuclear export signal and transcriptional activation capacity. Mol. Biol. Cell 11: 117-129.

for research use only — not for human, in vivo, diagnostic, therapeutic or other uses