

StARD13 (L-15): sc-67843

BACKGROUND

The StARD (steroidogenic acute regulatory protein-related lipid transfer (START) domain containing) family of proteins is comprised of 15 different members. All members contain the characteristic START domain and are believed to play key roles in the metabolism and transport of lipids. The StARD proteins are grouped into six subfamilies based on their START domain sequences. StARD8, StARD12 and StARD13 constitute one subfamily, namely the Rho GAP START group. StARD13, also known as DLC-2 (deleted in liver cancer protein 2) or GT650, is a Rho GAP protein specific for Rho A and Cdc42. StARD13 contains one Rho GAP domain, one SAM (sterile α motif) domain and one START domain. It localizes to the mitochondrion and cytoplasmic speckles in close association with lipid droplets, suggesting an additional function for StARD13 in mitochondrial lipid transport. StARD13 is ubiquitously expressed but is often deleted in hepatocellular and breast cancer cells, implying that StARD13 also acts as a tumor suppressor.

REFERENCES

- Ching, Y.P., et al. 2003. Deleted in liver cancer (DLC) 2 encodes a Rho GAP protein with growth suppressor function and is underexpressed in hepatocellular carcinoma. *J. Biol. Chem.* 278: 10824-10830.
- Katoh, Y. and Katoh, M. 2004. Identification and characterization of ARHGAP27 gene in silico. *Int. J. Mol. Med.* 14: 943-947.
- Ullmannova, V. and Popescu, N.C. 2006. Expression profile of the tumor suppressor genes DLC-1 and DLC-2 in solid tumors. *Int. J. Oncol.* 29: 1127-1132.
- Ng, D.C., et al. 2006. Mitochondrial targeting of growth suppressor protein DLC-2 through the START domain. *FEBS Lett.* 580: 191-198.

CHROMOSOMAL LOCATION

Genetic locus: STARD13 (human) mapping to 13q13.1; Stard13 (mouse) mapping to 5 G3.

SOURCE

StARD13 (L-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of StARD13 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-67843 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

RESEARCH USE

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

APPLICATIONS

StARD13 (L-15) is recommended for detection of StARD13 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

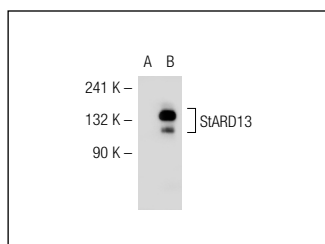
StARD13 (L-15) is also recommended for detection of StARD13 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for StARD13 siRNA (h): sc-63070, StARD13 siRNA (m): sc-63071, StARD13 shRNA Plasmid (h): sc-63070-SH, StARD13 shRNA Plasmid (m): sc-63071-SH, StARD13 shRNA (h) Lentiviral Particles: sc-63070-V and StARD13 shRNA (m) Lentiviral Particles: sc-63071-V.

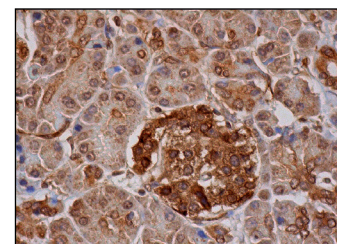
Molecular Weight of StARD13: 125 kDa.

Positive Controls: StARD13 (m): 293T lysate: sc-123813.

DATA



StARD13 (L-15): sc-67843. Western blot analysis of StARD13 expression in non-transfected: sc-117752 (A) and mouse StARD13 transfected: sc-123813 (B) 293T whole cell lysates.



StARD13 (L-15): sc-67843. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic and nuclear staining of exocrine glandular cells and Islets of Langerhans.

SELECT PRODUCT CITATIONS

- Tang, F., et al. 2012. MicroRNA-125b induces metastasis by targeting STARD13 in MCF-7 and MDA-MB-231 breast cancer cells. *PLoS ONE* 7: e35435.
- Hanna, S., et al. 2014. StarD13 is a tumor suppressor in breast cancer that regulates cell motility and invasion. *Int. J. Oncol.* 44: 1499-1511.

PROTOCOLS

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



Try **StARD13 (H-10): sc-377054**, our highly recommended monoclonal alternative to StARD13 (L-15).