# StARD13 (m): 293T Lysate: sc-123813



The Power to Question

# **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 RhoGAP START group. StARD13, also known as DLC2 (deleted in liver cancer protein 2) or GT650, is a RhoGAP protein specific for Rho A and Cdc42. StARD13 contains one RhoGAP domain, one SAM (sterile  $\alpha$  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 RhoGAP protein with growth suppressor function and is underexpressed in hepatocellular carcinoma. J. Biol. Chem. 278: 10824-10830.
- Katoh, Y., et al. 2004. Identification and characterization of ARHGAP27 gene in silico. Int. J. Mol. Med. 14: 943-947.
- 3. Ullmannova, V., et al. 2006. Expression profile of the tumor suppressor genes DLC-1 and DLC-2 in solid tumors. Int. J. Oncol. 29: 1127-1132.
- 4. Ng, D.C., et al. 2006. Mitochondrial targeting of growth suppressor protein DLC2 through the START domain. FEBS Lett. 580: 191-198.
- Hatch, G.M., et al. 2007. StARD13(DLC-2) Rho Gap mediates ceramide activation of phosphatidylglycerolphosphate synthase and drug response in Chinese hamster ovary cells. Mol. Biol. Cell 19: 1083-1092.
- Kawai, K., et al. 2007. START-GAP3/DLC-3 is a GAP for Rho A and Cdc42 and is localized in focal adhesions regulating cell morphology. Biochem. Biophys. Res. Commun. 364: 783-789.
- 7. Kwan, J.J. and Donaldson, L.W. 2007. The NMR structure of the murine DLC-2 SAM domain reveals a variant fold that is similar to a four-helix bundle. BMC Struct. Biol. 7: 34.
- 8. Li, H., et al. 2007. Solution structures, dynamics, and lipid-binding of the sterile  $\alpha$ -motif domain of the deleted in liver cancer 2. Proteins 67: 1154-1166

# **CHROMOSOMAL LOCATION**

Genetic locus: Stard13 (mouse) mapping to 5 G3.

# **PRODUCT**

StARD13 (m): 293T Lysate represents a lysate of mouse StARD13 transfected 293T cells and is provided as 100  $\mu g$  protein in 200  $\mu l$  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**

StARD13 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive StARD13 antibodies. Recommended use: 10-20  $\mu$ l per lane.

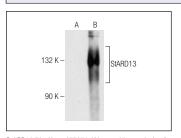
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

StARD13 (H-10): sc-377054 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse StARD13 expression in StARD13 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

# **RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgG $\kappa$  BP-HRP: sc-516102 or m-lgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>TM</sup> Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

#### DATA



StARD13 (H-10): sc-377054. Western blot analysis of StARD13 expression in non-transfected: sc-117752 (A) and mouse StARD13 transfected: sc-123813 (B) 293T whole cell lysates.

# **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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com