

StARD8 (T-19): sc-67862

BACKGROUND

The StARD (steroidogenic acute regulatory protein-related lipid transfer (START) domain containing) family of proteins is comprised of fifteen 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. StARD8, also known as DLC3 (deleted in liver cancer protein 3) or STARTGAP3, is a RhoGAP protein specific for Rho A and Cdc42. Localizing to focal adhesions, StARD8 contains one RhoGAP domain, one SAM (sterile α motif) domain and one START domain. Overexpression of StARD8 in various cancer cell lines represses cell proliferation and colony formation, implying that StARD8 acts as a tumor suppressor and plays a role in the regulation of cell growth.

REFERENCES

1. Katoh, M., et al. 2004. Characterization of human ARHGAP10 gene in silico. *Int. J. Oncol.* 25: 1201-1206.
2. Sjöblom, T., et al. 2006. The consensus coding sequences of human breast and colorectal cancers. *Science* 314: 268-274.
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.
5. Durkin, M.E., et al. 2007. Deleted in liver cancer 3 (DLC-3), a novel Rho GTPase-activating protein, is downregulated in cancer and inhibits tumor cell growth. *Oncogene* 26: 4580-4589.
6. Kawai, K., et al. 2007. START-GAP3/DLC3 is a GAP for RhoA and Cdc42 and is localized in focal adhesions regulating cell morphology. *Biochem. Biophys. Res. Commun.* 364: 783-789.
7. Qian, X., et al. 2007. Oncogenic inhibition by a deleted in liver cancer gene requires cooperation between tensin binding and Rho-specific GTPase-activating protein activities. *Proc. Natl. Acad. Sci. USA* 104: 9012-9017.

CHROMOSOMAL LOCATION

Genetic locus: STARD8 (human) mapping to Xq13.1; Stard8 (mouse) mapping to X C3.

SOURCE

StARD8 (T-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of StARD8 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-67862 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

StARD8 (T-19) is recommended for detection of StARD8 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

StARD8 (T-19) is also recommended for detection of StARD8 in additional species, including equine.

Suitable for use as control antibody for StARD8 siRNA (h): sc-63080, StARD8 siRNA (m): sc-63081, StARD8 shRNA Plasmid (h): sc-63080-SH, StARD8 shRNA Plasmid (m): sc-63081-SH, StARD8 shRNA (h) Lentiviral Particles: sc-63080-V and StARD8 shRNA (m) Lentiviral Particles: sc-63081-V.

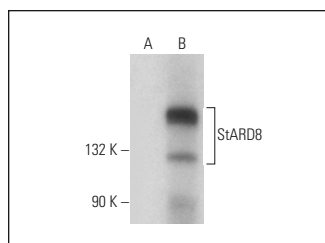
Molecular Weight of StARD8: 113/122 kDa.

Positive Controls: MES-SA/Dx5 cell lysate: sc-2284, U-87 MG cell lysate: sc-2411 or StARD8 (h2): 293T Lysate: sc-174031.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



StARD8 (T-19): sc-67862. Western blot analysis of StARD8 expression in non-transfected: sc-117752 (A) and human StARD8 transfected: sc-174031 (B) 293T whole cell lysates.

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.