

# StARD8 (A-8): sc-166444

## 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  $\alpha$  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. 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. 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.
4. Ng, D.C., et al. 2006. Mitochondrial targeting of growth suppressor protein DLC-2 through the START domain. *FEBS Lett.* 580: 191-198.
5. Durkin, M.E., et al. 2007. Deleted in liver cancer 3 (DLC3), 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 Rho A 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 (A-8) is a mouse monoclonal antibody raised against amino acids 731-830 mapping within an internal region of StARD8 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## RESEARCH USE

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

## APPLICATIONS

StARD8 (A-8) is recommended for detection of StARD8 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

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.

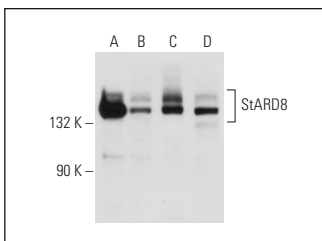
Molecular Weight of StARD8: 113/122 kDa.

Positive Controls: MES-SA/Dx5 cell lysate: sc-2284, KNRK whole cell lysate: sc-2214 or HeLa whole cell lysate: sc-2200.

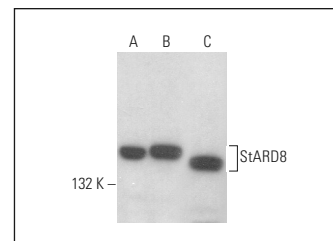
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:  
 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



StARD8 (A-8): sc-166444. Western blot analysis of StARD8 expression in MES-SA/Dx5 (A), HeLa (B), NIH/3T3 (C) and KNRK (D) whole cell lysates.



StARD8 (A-8): sc-166444. Western blot analysis of StARD8 expression in HeLa (A), F9 (B) and HEL 92.1.7 (C) 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.