

StARD5 (H-4): sc-514236

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. StARD4, StARD5 and StARD6 constitute one subfamily, sharing approximately 30% amino acid identity with each other. StARD6 is specifically expressed in the testis, while StARD4 and StARD5 are widely expressed with predominant expression in kidney and liver. These proteins are believed to function in the intracellular cytosolic transport of sterols and/or the biosynthesis of cholesterol. The expression of StARD4 can be regulated by sterols, whereas the expression of StARD5 is not sterol-regulated but can be induced by endoplasmic reticulum (ER) stress. Due to its exclusive tissue expression and its interaction with sterols, StARD6 may function in reproduction and germ cell maturation.

REFERENCES

1. Soccio, R.E., et al. 2002. The cholesterol-regulated StARD4 gene encodes a StAR-related lipid transfer protein with two closely related homologues, StarD5 and StarD6. *Proc. Natl. Acad. Sci. USA* 99: 6943-6948.
2. Alpy, F. and Tomasetto, C. 2005. Give lipids a StART: the StAR-related lipid transfer (START) domain in mammals. *J. Cell Sci.* 118: 2791-2801.
3. Soccio, R.E., et al. 2005. Differential gene regulation of StARD4 and StARD5 cholesterol transfer proteins. Activation of StARD4 by sterol regulatory element-binding protein-2 and StarD5 by endoplasmic reticulum stress. *J. Biol. Chem.* 280: 19410-19418.
4. Rodriguez-Agudo, D., et al. 2005. Human StARD5, a cytosolic StAR-related lipid binding protein. *J. Lipid Res.* 46: 1615-1623.

CHROMOSOMAL LOCATION

Genetic locus: *Stard5* (mouse) mapping to 7 D3.

SOURCE

StARD5 (H-4) is a mouse monoclonal antibody raised against amino acids 1-51 mapping at the N-terminus of StARD5 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

StARD5 (H-4) is available conjugated to agarose (sc-514236 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514236 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514236 PE), fluorescein (sc-514236 FITC), Alexa Fluor® 488 (sc-514236 AF488), Alexa Fluor® 546 (sc-514236 AF546), Alexa Fluor® 594 (sc-514236 AF594) or Alexa Fluor® 647 (sc-514236 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514236 AF680) or Alexa Fluor® 790 (sc-514236 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

StARD5 (H-4) is recommended for detection of StARD5 of mouse and rat origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 StARD5 siRNA (m): sc-63075, StARD5 shRNA Plasmid (m): sc-63075-SH and StARD5 shRNA (m) Lentiviral Particles: sc-63075-V.

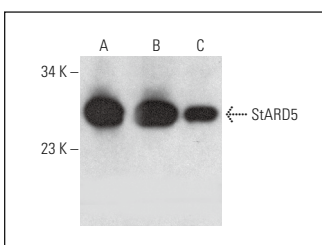
Molecular Weight of StARD5: 26 kDa.

Positive Controls: c4 whole cell lysate: sc-364186, mouse liver extract: sc-2256 or RAW 264.7 whole cell lysate: sc-2211.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



StARD5 (H-4): sc-514236. Western blot analysis of StARD5 expression in mouse liver tissue extract (A) and c4 (B) and RAW 264.7 (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.

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.