**BACKGROUND**

Steroidogenic acute regulatory (StAR) protein appears to mediate the rapid increase in pregnenolone synthesis stimulated by tropic hormones. StAR increases pregnenolone synthesis more than 4-fold and a major StAR transcript of 1.6 kb is found in ovary and testis. During ongoing growth and differentiation of the follicle of the ovary, the immunoreactivity of StAR tends to shift from the granulosa cells of early antral follicles to the theca cell layers in the adult. The first and rate-limiting step of steroidogenesis is the transfer of cholesterol from the outer mitochondrial membrane to the inner membrane where it is converted to pregnenolone by cytochrome P450 side-chain cleavage. This reaction is modulated in the gonads and adrenals by StAR, however, the mechanism used by StAR is not understood. This protein was isolated from a human adrenal cortex library and nonsense mutations in the StAR gene can cause lipid congenital adrenal hyperplasia. The gene which encodes StAR maps to human chromosome 8p11.23.

**CHROMOSOMAL LOCATION**

Genetic locus: STAR (human) mapping to 8p11.23; Star (mouse) mapping to B A2.

**SOURCE**

StAR (D-2) is a mouse monoclonal antibody raised against amino acids 1-285 representing full length StAR of human 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.

StAR (D-2) is available conjugated to agarose (sc-166821 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166821 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to phycoerythrin (sc-166821 PE), fluorescein (sc-166821 FITC), Alexa Fluor® 488 (sc-166821 AF488), Alexa Fluor® 546 (sc-166821 AF546), Alexa Fluor® 594 (sc-166821 AF594) or Alexa Fluor® 647 (sc-166821 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166821 AF680) or Alexa Fluor® 790 (sc-166821 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

StAR (D-2) is recommended for detection of StAR of mouse, rat and human 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 StAR siRNA (h): sc-44121, StAR siRNA (m): sc-153878, StAR shRNA Plasmid (h): sc-44121-SH, StAR shRNA Plasmid (m): sc-153878-SH, StAR shRNA (h) Lentiviral Particles: sc-44121-V and StAR shRNA (m) Lentiviral Particles: sc-153878-V.

Molecular Weight of StAR: 30 kDa.

Positive Controls: StAR (h): 293 Lysate: sc-112333, human adrenal gland extract: sc-363761 or rat adrenal gland extract: sc-364802.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:


**DATA**

**SELECT PRODUCT CITATIONS**


**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.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.