

DARP (D-14): sc-161347

BACKGROUND

Ankyrins are membrane adaptor molecules that play important roles in coupling integral membrane proteins to the spectrin-based cytoskeleton network. Mutations of ankyrin genes lead to severe genetic diseases, such as fatal cardiac arrhythmias and hereditary spherocytosis. ANKRD23 (ankyrin repeat domain 23), also known as DARP (diabetes-related ankyrin repeat protein) or MARP3 (muscle ankyrin repeat protein 3), is a 305 amino acid coiled-coil protein that contains 4 ANK repeats and belongs to the MARP family. Encoded by a gene that maps to human chromosome 2q11.2, ANKRD23 is conserved in chimpanzee, canine, mouse and rat. ANKRD23 exists as two alternatively spliced isoforms, localizes to nucleus and is evident during recovery following starvation. Expressed mainly in heart, skeletal muscle and brown adipose tissues, ANKRD23 binds to the elastic filamentous protein Titin and is up-regulated in type 2 diabetes, as well as brown adipose tissue, suggesting a role in energy metabolism. ANKRD23 also functions as a transcriptional regulator and may be a molecular link between myofibrillar stretch-induced signaling pathways and muscle gene expression. ANKRD23 may also play a role in cardiac hypertrophy.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ANKRD23 (human) mapping to 2q11.2; Ankrd23 (mouse) mapping to 1 B.

SOURCE

DARP (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of DARP of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-161347 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DARP (D-14) is recommended for detection of DARP of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other ANKRD family members.

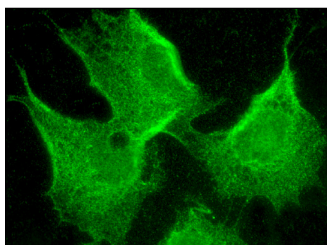
Suitable for use as control antibody for DARP siRNA (h): sc-95037, DARP siRNA (m): sc-141084, DARP shRNA Plasmid (h): sc-95037-SH, DARP shRNA Plasmid (m): sc-141084-SH, DARP shRNA (h) Lentiviral Particles: sc-95037-V and DARP shRNA (m) Lentiviral Particles: sc-141084-V.

Molecular Weight of DARP: 34 kDa.

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) 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



DARP (D-14): sc-161347. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear and cytoplasmic localization.

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.