SANTA CRUZ BIOTECHNOLOGY, INC.

ANKRD52 (A-1): sc-398544

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. ANKRD52 (ankyrin repeat domain 52), also known as PP6-ARS-C (serine/threonine-protein phosphatase 6 regulatory ankyrin repeat subunit C), is a 1,076 amino acid phosphoprotein that contains 28 ANK repeats. Encoded by a gene that maps to human chromosome 12q13.2, ANKRD52 is conserved in chimpanzee, canine, bovine, mouse, rat, chicken and zebrafish. ANKRD52 is a putative regulatory subunit of protein phospatase 6 (PP6), a holoenzyme that may be a heterotrimeric complex formed by a catalytic subunit, a SKAP55 domain-containing subunit (PP6R) and an ankyrin repeat-domain containing regulatory subunit (ARS). ANKRD52 may also be involved in phosphoprotein substrate recognition.

REFERENCES

1. Lobjois, V., et al. 2008. A muscle transcriptome analysis identifies positional candidate genes for a complex trait in pig. Anim. Genet. 39: 147-162.
2. Stefansson, B., et al. 2008. Protein phosphatase 6 regulatory subunits composed of ankyrin repeat domains. Biochemistry 47: 1442-1451.
3. Howarth, K.D., et al. 2008. Array painting reveals a high frequency of balanced translocations in breast cancer cell lines that break in cancer-relevant genes. Oncogene 27: 3345-3359.

CHROMOSOMAL LOCATION

Genetic locus: ANKRD52 (human) mapping to 12q13.2; Ankrd52 (mouse) mapping to 10 D3.

SOURCE

ANKRD52 (A-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1043-1076 at the C-terminus of ANKRD52 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ANKRD52 (A-1) is available conjugated to agarose (sc-398544 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-398544 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398544 PE), fluorescein (sc-398544 FITC), Alexa Fluor® 488 (sc-398544 AF488), Alexa Fluor® 546 (sc-398544 AF546), Alexa Fluor® 594 (sc-398544 AF594) or Alexa Fluor® 647 (sc-398544 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398544 AF680) or Alexa Fluor® 790 (sc-398544 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398544 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

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

APPLICATIONS

ANKRD52 (A-1) is recommended for detection of ANKRD52 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 ANKRD52 siRNA (h): sc-106806, ANKRD52 siRNA (m): sc-141110, ANKRD52 shRNA Plasmid (h): sc-106806-SH, ANKRD52 shRNA Plasmid (m): sc-141110-SH, ANKRD52 shRNA (h) Lentiviral Particles: sc-106806-V and ANKRD52 shRNA (m) Lentiviral Particles: sc-141110-V.

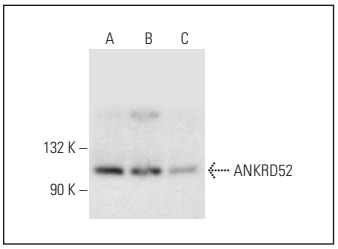
Molecular Weight of ANKRD52: 115 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or K-562 whole cell lysate: sc-2203.

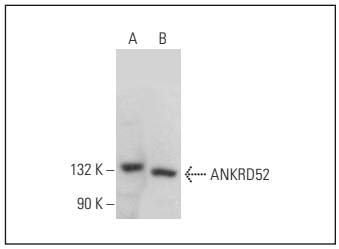
RECOMMENDED SUPPORT REAGENTS

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



ANKRD52 (A-1): sc-398544. Western blot analysis of ANKRD52 expression in K-562 (**A**), Jurkat (**B**) and HeLa (**C**) whole cell lysates.



ANKRD52 (A-1): sc-398544. Western blot analysis of ANKRD52 expression in K-562 (**A**) and IMR-32 (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Song, T.Y., et al. 2021. Tumor evolution selectively inactivates the core microRNA machinery for immune evasion. Nat. Commun. 12: 7003.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.