SANTA CRUZ BIOTECHNOLOGY, INC.

ANKRD28/44/52 (G-6): sc-393032

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. ANKRD28 (ankyrin repeat domain-containing protein 28), also known as PITK, is a 1,086 amino acid protein that localizes to the nucleus and contains 27 ankyrin repeats. Expressed in a variety of tissues, two isoforms of ANKRD28 exist due to alternative splicing events. ANKRD44 (ankyrin repeat domain 44), also known as PP6-ARS-B (serine/threonine-protein phosphatase 6 regulatory ankyrin repeat subunit B), is a 993 amino acid protein that contains 28 ANK repeats and exists as 5 alternatively spliced isoforms. ANKRD44 is conserved in chimpanzee, canine, mouse, rat, chicken, zebrafish and *Magnaporthe grisea*. 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. ANKRD52 is conserved in chimpanzee, canine, bovine, mouse, rat, chicken and zebrafish. ANKRD28/44/52 are putative regulatory subunits 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). ANKRD28/44/52 may also be involved in phosphoprotein substrate recognition.

REFERENCES

1. Altman, A.L. and Fanning, E. 2001. The Chinese hamster dihydrofolate reductase replication origin β is active at multiple ectopic chromosomal locations and requires specific DNA sequence elements for activity. Mol. Cell. Biol. 21: 1098-1110.
2. Kwiek, N.C., et al. 2006. PITK, a PP1 targeting subunit that modulates the phosphorylation of the transcriptional regulator hnRNP K. Cell. Signal. 18: 1769-1778.

SOURCE

ANKRD28/44/52 (G-6) is a mouse monoclonal antibody raised against amino acids 262-394 mapping within an internal region of ANKRD44 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.

ANKRD28/44/52 (G-6) is available conjugated to agarose (sc-393032 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393032 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393032 PE), fluorescein (sc-393032 FITC), Alexa Fluor® 488 (sc-393032 AF488), Alexa Fluor® 546 (sc-393032 AF546), Alexa Fluor® 594 (sc-393032 AF594) or Alexa Fluor® 647 (sc-393032 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393032 AF680) or Alexa Fluor® 790 (sc-393032 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

ANKRD28/44/52 (G-6) is recommended for detection of ANKRD28, ANKRD44 and 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).

ANKRD28/44/52 (G-6) is also recommended for detection of ANKRD28, ANKRD44 and ANKRD52 in additional species, including canine, bovine, porcine and avian.

Molecular Weight of ANKRD28: 114 kDa.

Molecular Weight of ANKRD44: 108 kDa.

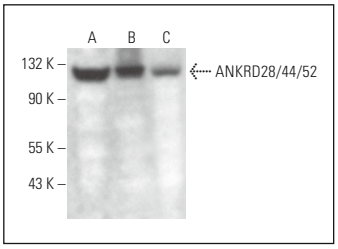
Molecular Weight of ANKRD52: 115 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, CCRF-CEM cell lysate: sc-2225 or NAMALWA cell lysate: sc-2234.

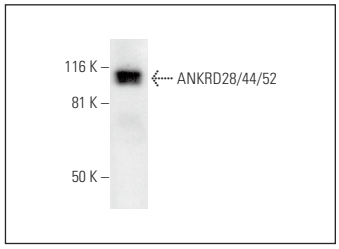
RECOMMENDED SUPPORT REAGENTS

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



ANKRD28/44/52 (G-6): sc-393032. Western blot analysis of ANKRD28/44/52 expression in CCRF-CEM (**A**), NAMALWA (**B**) and RAW 264.7 (**C**) whole cell lysates.



ANKRD28/44/52 (G-6): sc-393032. Western blot analysis of ANKRD28/44/52 expression in human tonsil tissue extract.

SELECT PRODUCT CITATIONS

1. Zhu, L., et al. 2018. TBK-binding protein 1 regulates IL-15-induced autophagy and NKT cell survival. Nat. Commun. 9: 2812.

STORAGE

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