

ZNF452 (G-11): sc-514003

BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. The majority of zinc-finger proteins contain a Krüppel-type DNA binding domain and a KRAB domain, which is thought to interact with KAP1, thereby recruiting histone modifying proteins. ZNF452, also known as SCAN domain-containing protein 3, is a 1,325 amino acid protein that contains one integrase catalytic domain and one SCAN box domain. ZNF452 is encoded by a gene located on chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6p22.1 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

REFERENCES

1. Payre, F. and Vincent, A. 1988. Finger proteins and DNA-specific recognition: distinct patterns of conserved amino acids suggest different evolutionary modes. *FEBS Lett.* 234: 245-250.
2. Thiesen, H.J. 1990. Multiple genes encoding zinc finger domains are expressed in human T cells. *New Biol.* 2: 363-374.
3. Rosenfeld, R. and Margalit, H. 1993. Zinc fingers: conserved properties that can distinguish between spurious and actual DNA-binding motifs. *J. Biomol. Struct. Dyn.* 11: 557-570.
4. Laity, J.H., et al. 2001. Zinc finger proteins: new insights into structural and functional diversity. *Curr. Opin. Struct. Biol.* 11: 39-46.

CHROMOSOMAL LOCATION

Genetic locus: ZBED9 (human) mapping to 6p22.1.

SOURCE

ZNF452 (G-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1237-1261 near the C-terminus of ZNF452 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ZNF452 (G-11) is available conjugated to agarose (sc-514003 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514003 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514003 PE), fluorescein (sc-514003 FITC), Alexa Fluor[®] 488 (sc-514003 AF488), Alexa Fluor[®] 546 (sc-514003 AF546), Alexa Fluor[®] 594 (sc-514003 AF594) or Alexa Fluor[®] 647 (sc-514003 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-514003 AF680) or Alexa Fluor[®] 790 (sc-514003 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514003 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

ZNF452 (G-11) is recommended for detection of ZNF452 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 ZNF452 siRNA (h): sc-95338, ZNF452 shRNA Plasmid (h): sc-95338-SH and ZNF452 shRNA (h) Lentiviral Particles: sc-95338-V.

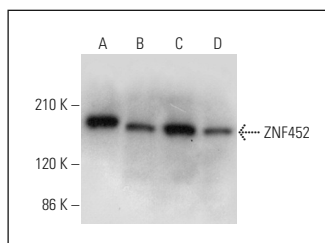
Molecular Weight of ZNF452: 152 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

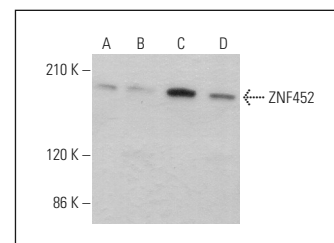
RECOMMENDED SUPPORT REAGENTS

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



ZNF452 (G-11): sc-514003. Western blot analysis of ZNF452 expression in Hep G2 (A), HeLa (B), Jurkat (C) and K-562 (D) whole cell lysates.



ZNF452 (G-11): sc-514003. Western blot analysis of ZNF452 expression in HL-60 (A), F9 (B), Neuro-2A (C) and C6 (D) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Zhang, X., et al. 2017. ZNF452 facilitates tumor proliferation and invasion via activating AKT-GSK3β signaling pathway and predicts poor prognosis of non-small cell lung cancer patients. *Oncotarget* 8: 38863-38875.

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