SANTA CRUZ BIOTECHNOLOGY, INC.

ZNF691 (C-3): sc-376052

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. Zinc finger protein 691 (ZNF691) is a 312 amino acid member of the Krüppel C_2H_2-type zinc-finger protein family. Localized to the nucleus, ZNF691 contains seven C_2H_2-type zinc fingers through which it is thought to be involved in DNA-binding and transcriptional regulation. Two isoforms of ZNF691 exist as a result of alternative splicing events.

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. Berg, J.M. 1988. Proposed structure for the zinc-binding domains from transcription factor IIIA and related proteins. Proc. Natl. Acad. Sci. USA 85: 99-102.
3. Thiesen, H.J. 1990. Multiple genes encoding zinc finger domains are expressed in human T cells. New Biol. 2: 363-374.
4. 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.

CHROMOSOMAL LOCATION

Genetic locus: ZNF691 (human) mapping to 1p34.2; Zfp691 (mouse) mapping to 4 D2.1.

SOURCE

ZNF691 (C-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 173-203 within an internal region of ZNF691 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.

ZNF691 (C-3) is available conjugated to agarose (sc-376052 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-376052 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376052 PE), fluorescein (sc-376052 FITC), Alexa Fluor® 488 (sc-376052 AF488), Alexa Fluor® 546 (sc-376052 AF546), Alexa Fluor® 594 (sc-376052 AF594) or Alexa Fluor® 647 (sc-376052 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376052 AF680) or Alexa Fluor® 790 (sc-376052 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-376052 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

ZNF691 (C-3) is recommended for detection of ZNF691 isoforms 1 and 2 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 ZNF691 siRNA (h): sc-78561, ZNF691 siRNA (m): sc-155780, ZNF691 shRNA Plasmid (h): sc-78561-SH, ZNF691 shRNA Plasmid (m): sc-155780-SH, ZNF691 shRNA (h) Lentiviral Particles: sc-78561-V and ZNF691 shRNA (m) Lentiviral Particles: sc-155780-V.

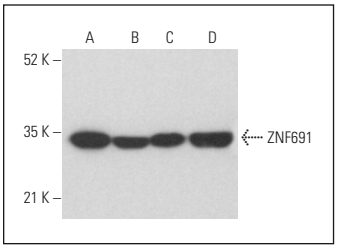
Molecular Weight of ZNF691: 36 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132, KNRK nuclear extract: sc-2141 or NIH/3T3 nuclear extract: sc-2138.

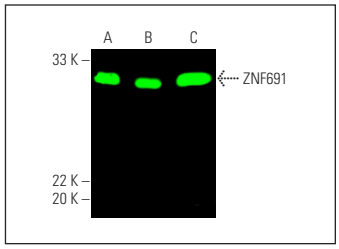
RECOMMENDED SUPPORT REAGENTS

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



ZNF691 (C-3): sc-376052. Western blot analysis of ZNF691 expression in Jurkat (**A**), NIH/3T3 (**B**) and KNRK (**C**) nuclear extracts and THP-1 whole cell lysate (**D**).



ZNF691 (C-3): sc-376052. Near-Infrared western blot analysis of ZNF691 expression in KNRK (**A**) and NIH/3T3 (**B**) nuclear extracts and PC-12 whole cell lysate (**C**). Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.