SANTA CRUZ BIOTECHNOLOGY, INC.

ZNF688 (F-6): sc-390617

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 688 (ZNF688) is a 276 amino acid member of the Krüppel C_2H_2-type zinc-finger protein family. Localized to the nucleus, ZNF688 contains two C_2H_2-type zinc fingers and one KRAB domain through which it is thought to be involved in DNA-binding and transcriptional regulation.

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.
5. Abrink, M., et al. 1995. Isolation of cDNA clones for 42 different Krüppel-related zinc finger proteins expressed in the human monoblast cell line U-937. DNA Cell Biol. 14: 125-136.

CHROMOSOMAL LOCATION

Genetic locus: ZNF688 (human) mapping to 16p11.2; Zfp688 (mouse) mapping to 7 F3.

SOURCE

ZNF688 (F-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 239-264 near the C-terminus of ZNF688 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.

ZNF688 (F-6) is available conjugated to agarose (sc-390617 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-390617 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390617 PE), fluorescein (sc-390617 FITC), Alexa Fluor® 488 (sc-390617 AF488), Alexa Fluor® 546 (sc-390617 AF546), Alexa Fluor® 594 (sc-390617 AF594) or Alexa Fluor® 647 (sc-390617 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390617 AF680) or Alexa Fluor® 790 (sc-390617 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-390617 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

ZNF688 (F-6) is recommended for detection of ZNF688 isoforms 1 and 3 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 ZNF688 siRNA (h): sc-93547, ZNF688 siRNA (m): sc-155778, ZNF688 shRNA Plasmid (h): sc-93547-SH, ZNF688 shRNA Plasmid (m): sc-155778-SH, ZNF688 shRNA (h) Lentiviral Particles: sc-93547-V and ZNF688 shRNA (m) Lentiviral Particles: sc-155778-V.

Molecular Weight (predicted) of ZNF688: 31 kDa.

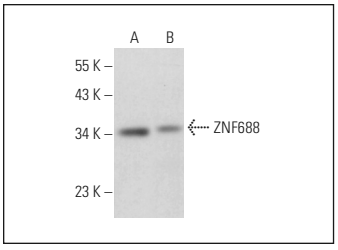
Molecular Weight (observed) of ZNF688: 31-38 kDa.

Positive Controls: ZNF688 (h): 293T Lysate: sc-369835, Jurkat whole cell lysate: sc-2204 or SK-BR-3 cell lysate: sc-2218.

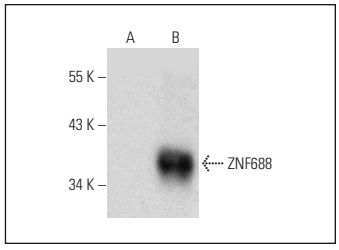
RECOMMENDED SUPPORT REAGENTS

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



ZNF688 (F-6): sc-390617. Western blot analysis of ZNF688 expression in Jurkat (**A**) and SK-BR-3 (**B**) whole cell lysates.



ZNF688 (F-6): sc-390617. Western blot analysis of ZNF688 expression in non-transfected: sc-117752 (**A**) and human ZNF688 transfected: sc-369835 (**B**) 293T whole cell lysates.

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.