SANTA CRUZ BIOTECHNOLOGY, INC.

ZNF12 (F-5): sc-514394

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. ZNF12 (zinc finger protein 12), also known as ZNF325 (zinc finger protein 325), GIOT-3 (gonadotropin-inducible ovary transcription repressor 3), KOX3 or HZF11, is a 501 amino acid nuclear protein belonging to the Krüppel C_2H_2-type zinc-finger protein family. ZNF12 is suggested to play a role in transcriptional regulation of MAPK signaling pathways, thereby mediating cellular functions. Containing eight C_2H_2-type zinc fingers and a KRAB domain, ZNF12 is encoded by a gene that maps to human chromosome 7p22.1.

REFERENCES

1. Schuh, R., et al. 1986. A conserved family of nuclear proteins containing structural elements of the finger protein encoded by Krüppel, a *Drosophila* segmentation gene. Cell 47: 1025-1032.
2. Thiesen, H.J. 1990. Multiple genes encoding zinc finger domains are expressed in human T cells. New Biol. 2: 363-374.
3. Seite, P., et al. 1991. Two human genes encoding zinc finger proteins, ZNF12 (KOX 3) and ZNF26 (KOX 20), map to chromosome 7p22-p21 and 12q24.33, respectively. Hum. Genet. 86: 585-590.
4. Rousseau-Merck, M.F., et al. 1993. Chromosomal localization of 9 KOX zinc finger genes: physical linkages suggest clustering of KOX genes on chromosomes 12, 16, and 19. Hum. Genet. 92: 583-587.
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: ZNF12 (human) mapping to 7p22.1; Zfp12 (mouse) mapping to 5 G2.

SOURCE

ZNF12 (F-5) is a mouse monoclonal antibody raised against amino acids 431-480 mapping near the C-terminus of ZNF12 of mouse 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.

ZNF12 (F-5) is available conjugated to agarose (sc-514394 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-514394 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514394 PE), fluorescein (sc-514394 FITC), Alexa Fluor® 488 (sc-514394 AF488), Alexa Fluor® 546 (sc-514394 AF546), Alexa Fluor® 594 (sc-514394 AF594) or Alexa Fluor® 647 (sc-514394 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514394 AF680) or Alexa Fluor® 790 (sc-514394 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

ZNF12 (F-5) is recommended for detection of ZNF12 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 ZNF12 siRNA (h): sc-89639, ZNF12 siRNA (m): sc-105396, ZNF12 shRNA Plasmid (h): sc-89639-SH, ZNF12 shRNA Plasmid (m): sc-105396-SH, ZNF12 shRNA (h) Lentiviral Particles: sc-89639-V and ZNF12 shRNA (m) Lentiviral Particles: sc-105396-V.

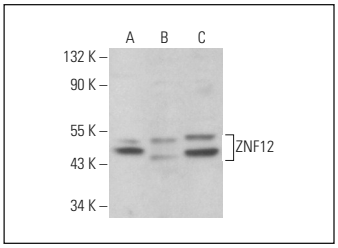
Molecular Weight of ZNF12: 58 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, mouse heart extract: sc-2254 or rat heart extract: sc-2393.

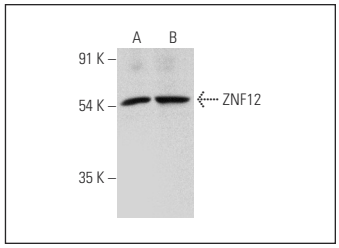
RECOMMENDED SUPPORT REAGENTS

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



ZNF12 (F-5): sc-514394. Western blot analysis of ZNF12 expression in SH-SY5Y (**A**), K-562 (**B**) and MEG-01 (**C**) whole cell lysates.



ZNF12 (F-5): sc-514394. Western blot analysis of ZNF12 expression in mouse heart (**A**) and rat heart (**B**) tissue extracts.

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.

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