SANTA CRUZ BIOTECHNOLOGY, INC.

ZNF12 (P-21): sc-133621

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 Krüeppel 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., Aicher, W., Gaul, U., Côte, S., Preiss, A., Maier, D., Seifert, E., Nauber, U., Schröder, C. and Kemler, R. 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., Huebner, K., Rousseau-Merck, M.F., Berger, R. and Thiesen, H.J. 1991. Two human genes encoding zinc finger proteins, ZNF 12 (KOX 3) and ZNF 26 (KOX 20), map to chromosome 7p22-p21 and 12q24.33, respectively. Hum. Genet. 86: 585-590.
4. Rousseau-Merck, M.F., Hillion, J., Jonveaux, P., Couillin, P., Seite, P., Thiesen, H.J. and Berger, R. 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., Aveskogh, M. and Hellman, L. 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.
6. Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 194536. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: ZNF12 (human) mapping to 7p22.1.

SOURCE

ZNF12 (P-21) is a Protein A purified rabbit polyclonal antibody raised against synthetic ZNF12 peptide of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

RESEARCH USE

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

APPLICATIONS

ZNF12 (P-21) is recommended for detection of ZNF12 of human origin by Western Blotting (starting dilution 1:200, 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), immunohistochemistry (including paraffin-embedded sections) (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 shRNA Plasmid (h): sc-89639-SH and ZNF12 shRNA (h) Lentiviral Particles: sc-89639-V.

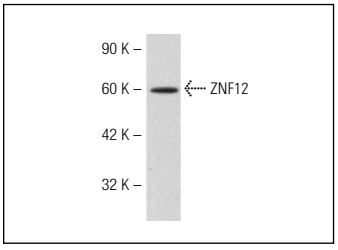
Molecular Weight of ZNF12: 58 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

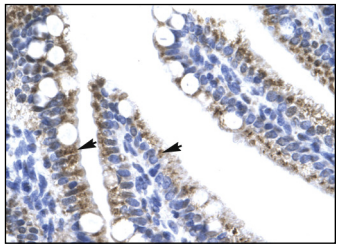
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



ZNF12 (P-21): sc-133621. Western blot analysis of ZNF12 expression in Hep G2 whole cell lysate.



ZNF12 (P-21): sc-133621. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human intestine tissue showing nuclear and cytoplasmic localization.

STORAGE

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

PROTOCOLS

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