SANTA CRUZ BIOTECHNOLOGY, INC.

ZC3H12C (G-13): sc-241750



The Power to Question

BACKGROUND

The zinc finger CCCH domain-containing protein 12C (ZC3H12C), also known as KIAA1726 or MCPIP3 (MCP-induced protein 3), is an 883 amino acid protein that contains one C3H1-type zinc finger domain and belongs to the ZC3H12 family. ZC3H12C is suggested to function as an RNase, and thereby modifies levels of target RNA. Binding magnesium as a cofactor, ZC3H12C has been found to be induced in THP-1 cells when exposed toTNF α or IL-1. ZC3H12C is encoded by a gene that maps to human chromosome 11, which comprises approximately 4% of human genomic DNA and is considered a gene and disease association dense chromosome. The chromosome 11 encoded Atm gene is important for regulation of cell cycle arrest and apoptosis following double strand DNA breaks. Atm mutation leads to the disorder known as ataxiatelangiectasia.

REFERENCES

- Lemmens, I., Merregaert, J., Van de Ven, W.J., Kas, K., Zhang, C.X., Giraud, S., Wautot, V., Buisson, N., De Witte, K., Salandre, J., Lenoir, G., Calender, A., Parente, F., Quincey, D., Courseaux, A., Carle, G.F., Gaudray, P., De Wit, M.J., Lips, C.J., et al. 1997. Construction of a 1.2-Mb sequence-ready contig of chromosome 11q13 encompassing the multiple endocrine neoplasia type 1 (MEN1) gene. The European Consortium on MEN1. Genomics 44: 94-100.
- Lemmens, I.H., Kas, K., Merregaert, J. and Van de Ven, W.J. 1998. Identification and molecular characterization of TM7SF2 in the FAUNA gene cluster on human chromosome 11q13. Genomics 49: 437-442.
- Nagase, T., Kikuno, R., Hattori, A., Kondo, Y., Okumura, K. and Ohara, O. 2000. Prediction of the coding sequences of unidentified human genes. XIX. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 7: 347-355.
- Taylor, T.D., Noguchi, H., Totoki, Y., Toyoda, A., Kuroki, Y., Dewar, K., Lloyd, C., Itoh, T., Takeda, T., Kim, D.W., She, X., Barlow, K.F., Bloom, T., Bruford, E., Chang, J.L., Cuomo, C.A., et al. 2006. Human chromosome 11 DNA sequence and analysis including novel gene identification. Nature 440: 497-500.
- Liang, J., Wang, J., Azfer, A., Song, W., Tromp, G., Kolattukudy, P.E. and Fu, M. 2008. A novel CCCH-zinc finger protein family regulates proinflammatory activation of macrophages. J. Biol. Chem. 283: 6337-6346.
- Dephoure, N., Zhou, C., Villen, J., Beausoleil, S.A., Bakalarski, C.E., Elledge, S.J. and Gygi, S.P. 2008. A quantitative atlas of mitotic phosphorylation. Proc. Natl. Acad. Sci. USA 105: 10762-10767.

CHROMOSOMAL LOCATION

Genetic locus: ZC3H12C (human) mapping to 11q22.3; Zc3h12c (mouse) mapping to 9 A5.3.

SOURCE

ZC3H12C (G-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ZC3H12C of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-241750 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ZC3H12C (G-13) is recommended for detection of ZC3H12C of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with MCPIP, ZC3H12B or ZC3H12D.

Suitable for use as control antibody for ZC3H12C siRNA (m): sc-155462, ZC3H12C shRNA Plasmid (m): sc-155462-SH and ZC3H12C shRNA (m) Lentiviral Particles: sc-155462-V.

Molecular Weight of ZC3H12C: 99 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluo-rescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **D0 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 or our catalog for detailed protocols and support products.