SANTA CRUZ BIOTECHNOLOGY, INC.

ZFOC1 (C-13): sc-139115

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. ZFOC1, also known as ZNF644 (zinc finger protein 644), ZEP2 (zinc finger motif enhancer-binding protein 2) or BM-005, is a 1,327 amino acid nuclear protein belonging to the Krüppel C_2H_2-type zinc-finger protein family. Existing as three alternatively spliced isoforms, ZFOC is involved in transcriptional regulation and contains seven C_2H_2-type zinc fingers. The gene encoding ZFOC1 maps to human chromosome 12q24.31.

REFERENCES

1. Thiesen, H.J. 1990. Multiple genes encoding zinc finger domains are expressed in human T cells. New Biol. 2: 363-374.
2. 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.
3. Peng, H., et al. 2002. A common DNA-binding site for SZF1 and the BRCA1-associated zinc finger protein, ZBRK1. Cancer Res. 62: 3773-3781.
4. Beausoleil, S.A., et al. 2004. Large-scale characterization of HeLa cell nuclear phosphoproteins. Proc. Natl. Acad. Sci. USA 101: 12130-12135.
5. Huntley, S., et al. 2006. A comprehensive catalog of human KRAB-associated zinc finger genes: insights into the evolutionary history of a large family of transcriptional repressors. Genome Res. 16: 669-677.
6. Tian, C.Y., et al. 2006. Progress in the study of KRAB zinc finger protein. Yi Chuan 28: 1451-1456.

CHROMOSOMAL LOCATION

Genetic locus: ZNF664 (human) mapping to 12q24.31; Zfp664 (mouse) mapping to 5 F.

SOURCE

ZFOC1 (C-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of ZFOC1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-139115 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

ZFOC1 (C-13) is recommended for detection of ZFOC1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ZFOC1 siRNA (h): sc-95767, ZFOC1 siRNA (m): sc-155518, ZFOC1 shRNA Plasmid (h): sc-95767-SH, ZFOC1 shRNA Plasmid (m): sc-155518-SH, ZFOC1 shRNA (h) Lentiviral Particles: sc-95767-V and ZFOC1 shRNA (m) Lentiviral Particles: sc-155518-V.

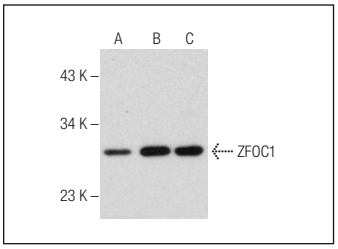
Molecular Weight of ZFOC1 isoforms: 150/140/12 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132, Jurkat whole cell lysate: sc-2204 or T-47D cell lysate: sc-2293.

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.

DATA



ZFOC1 (C-13): sc-139115. Western blot analysis of ZFOC1 expression in T-47D (**A**) and Jurkat (**B**) whole cell lysates and Jurkat nuclear extract (**C**).

PROTOCOLS

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