

ZFP2 (E-9): sc-514011

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. ZFP2 (zinc finger protein 2 hom-olog) is a 461 amino acid protein that localizes to the nucleus and is composed of 13 C₂H₂-type zinc fingers. It is encoded by a gene that maps to human chromosome 5, which contains 181 million base pairs and comprises nearly 6% of the human genome. Chromosome 5 is associated with Cockayne syndrome through the ERCC8 gene and familial adenomatous polyposis through the adenomatous polyposis coli (APC) tumor suppressor gene. Treacher Collins syndrome is also chromosome 5-associated and is caused by insertions or deletions within the TCOF1 gene. Deletion of the p arm of chromosome 5 leads to Cri du chat syndrome, while deletion of the q arm or of chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

REFERENCES

1. 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.
2. Edwards, S.J., et al. 1997. The mutational spectrum in Treacher Collins syndrome reveals a predominance of mutations that create a premature-termination codon. *Am. J. Hum. Genet.* 60: 515-524.
3. McDaniel, L.D., et al. 1997. Confirmation of homozygosity for a single nucleotide substitution mutation in a Cockayne syndrome patient using monoallelic mutation analysis in somatic cell hybrids. *Hum. Mutat.* 10: 317-321.
4. Crawford, M.J., et al. 1997. Human and murine PTX1/Ptx1 gene maps to the region for Treacher Collins syndrome. *Mamm. Genome* 8: 841-845.
5. Finch, R., et al. 2005. Familial adenomatous polyposis and mental retardation caused by a *de novo* chromosomal deletion at 5q15-q22: report of a case. *Dis. Colon Rectum* 48: 2148-2152.

CHROMOSOMAL LOCATION

Genetic locus: ZFP2 (human) mapping to 5q35.3; Zfp2 mouse) mapping to 11 B1.3.

SOURCE

ZFP2 (E-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 2-19 at the N-terminus of ZFP2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₃ lambda light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-514011 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

ZFP2 (E-9) is recommended for detection of ZFP2 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 ZFP2 siRNA (h): sc-92068, ZFP2 siRNA (m): sc-155537, ZFP2 shRNA Plasmid (h): sc-92068-SH, ZFP2 shRNA Plasmid (m): sc-155537-SH, ZFP2 shRNA (h) Lentiviral Particles: sc-92068-V and ZFP2 shRNA (m) Lentiviral Particles: sc-155537-V.

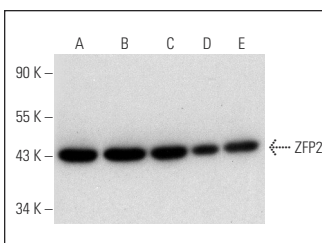
Molecular Weight of ZFP2: 53 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, COLO 205 whole cell lysate: sc-364177 or HEK293 whole cell lysate: sc-45136.

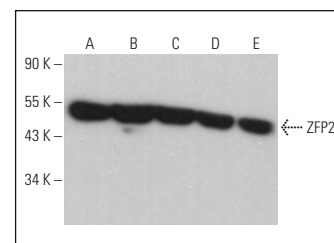
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGλ BP-HRP: sc-516132 or m-IgGλ BP-HRP (Cruz Marker): sc-516132-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-IgGλ BP-FITC: sc-516185 or m-IgGλ BP-PE: sc-516186 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ZFP2 (E-9): sc-514011. Western blot analysis of ZFP2 expression in Jurkat (A), COLO 205 (B) and HEK293 (C) whole cell lysates and SW480 (D) and Jurkat (E) nuclear extracts.



ZFP2 (E-9): sc-514011. Western blot analysis of ZFP2 expression in Jurkat (A), COLO 205 (B) and HEK293 (C) whole cell lysates and SW480 (D) and Jurkat (E) nuclear extracts. Detection reagent used: m-IgGλ BP-HRP (Cruz Marker): sc-516132-CM.

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.