

ZFP161 (C-4): sc-514298



The Power to Question

BACKGROUND

ZFP161 (zinc finger protein 161), also known as ZF5, ZBTB14 or ZNF478, is a 449 amino acid member of the Krüppel C₂H₂-type zinc-finger protein family. Localized to distinct regions within the nucleus, ZFP161 functions both as a transcriptional repressor of thymidine kinase (TK) and c-Myc promoters and as a transcriptional activator of the dopamine transporter (DAT) promoter. ZFP161 contains one BTB (POZ) domain and five C₂H₂-type zinc fingers which direct its specific localization and nucleic acid binding, respectively. Defects in the gene encoding ZFP161 may be associated with holoprosencephaly type 4 (HPE4), a structural anomaly of the brain characterized by a flattened nasal tip with no visible septum, hypotelorism, lack of nasal bridge, ptosis of the left upper eyelid and, in some cases, infant death.

REFERENCES

- Numoto, M., et al. 1993. Transcriptional repressor ZF5 identifies a new conserved domain in zinc finger proteins. *Nucleic Acids Res.* 21: 3767-3775.
- Sobek-Klocke, I., et al. 1997. The human gene ZFP161 on 18p11.21-pter encodes a putative c-Myc repressor and is homologous to murine Zfp161 (Chr 17) and Zfp161-rs1 (X Chr). *Genomics* 43: 156-164.
- Sugiura, K., et al. 1997. Expression cloning and intracellular localization of a human ZF5 homologue. *Biochim. Biophys. Acta* 1352: 23-26.
- Obata, T., et al. 1999. Analysis of the consensus binding sequence and the DNA-binding domain of ZF5. *Biochem. Biophys. Res. Commun.* 255: 528-534.
- Numoto, M., et al. 1999. ZF5, which is a Krüppel-type transcriptional repressor, requires the zinc finger domain for self-association. *Biochem. Biophys. Res. Commun.* 256: 573-578.

CHROMOSOMAL LOCATION

Genetic locus: ZBTB14 (human) mapping to 18p11.31; Zbtb14 (mouse) mapping to 17 E1.3.

SOURCE

ZFP161 (C-4) is a mouse monoclonal antibody raised against amino acids 150-449 mapping at the C-terminus of ZFP161 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-514298 X, 200 µg/0.1 ml.

ZFP161 (C-4) is available conjugated to agarose (sc-514298 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514298 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514298 PE), fluorescein (sc-514298 FITC), Alexa Fluor® 488 (sc-514298 AF488), Alexa Fluor® 546 (sc-514298 AF546), Alexa Fluor® 594 (sc-514298 AF594) or Alexa Fluor® 647 (sc-514298 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514298 AF680) or Alexa Fluor® 790 (sc-514298 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

ZFP161 (C-4) is recommended for detection of ZFP161 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 ZFP161 siRNA (h): sc-76958, ZFP161 siRNA (m): sc-155533, ZFP161 shRNA Plasmid (h): sc-76958-SH, ZFP161 shRNA Plasmid (m): sc-155533-SH, ZFP161 shRNA (h) Lentiviral Particles: sc-76958-V and ZFP161 shRNA (m) Lentiviral Particles: sc-155533-V.

ZFP161 (C-4) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

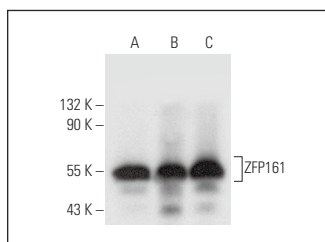
Molecular Weight of ZFP161: 51 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, Hep G2 nuclear extract: sc-364819 or K-562 nuclear extract: sc-2130.

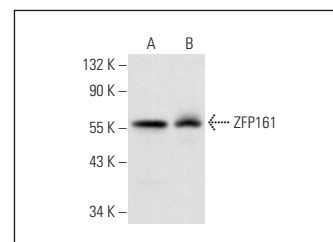
RECOMMENDED SUPPORT REAGENTS

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



ZFP161 (C-4): sc-514298. Western blot analysis of ZFP161 expression in HeLa (A), Hep G2 (B) and K-562 (C) nuclear extracts.



ZFP161 (C-4): sc-514298. Western blot analysis of ZFP161 expression in Jurkat (A) and Daudi (B) whole cell lysates.

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.