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ZFP281 Antibody

Catalog # ASC11299

Product Information

Application	WB, IF, E
Primary Accession	Q9Y2X9
Other Accession	AAH51905, 6912752
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	96915
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	ZFP281 antibody can be used for detection of ZFP281 by Western blot at 0.25 - 0.5 g/mL. Antibody can also be used for immunofluorescence starting at 20 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	23528
Other Names	Zinc finger protein 281, GC-box-binding zinc finger protein 1, Transcription factor ZBP-99, Zinc finger DNA-binding protein 99, ZNF281, GZP1, ZBP99
Target/Specificity	ZNF281;
Reconstitution & Storage	ZFP281 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	ZFP281 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ZNF281
Synonyms	GZP1, ZBP99
Function	Transcription repressor that plays a role in regulation of embryonic stem cells (ESCs) differentiation. Required for ESCs differentiation and acts by mediating autorepression of NANOG in ESCs: binds to the NANOG promoter and promotes association of NANOG protein to its own promoter and recruits the NuRD complex, which deacetylates histones. Not required for establishement and maintenance of ESCs (By similarity). Represses the transcription of a number of genes including GAST, ODC1 and VIM. Binds to

the G-rich box in the enhancer region of these genes.

Cellular Location Nucleus.

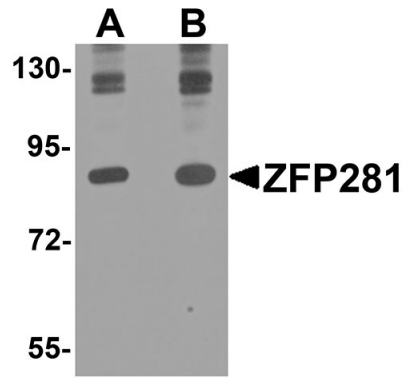
Background

ZFP281 Antibody: ZFP281, also known as ZBP-99, is a member of a conserved family of transcription factors that interact with GC-rich promoters. It contains four Kruppel-like zinc fingers and is highly homologous to ZBP-89, another regulator of ornithine decarboxylase gene expression. ZFP281 also interacts with many other other transcription factors, such as Sp1 to repress vimentin gene transcription. ZFP281 has also been shown to control embryonic stem cell pluripotency by direct regulating specific target genes. ZFP281 phyically interacts with the transcription factos POU5F1, Sox2, and NANOG. Gene expression microarray anlysis indicated that some ZFP281 target genes were activated, while others were repressed upon knockdown of ZFP281 expression, showing that ZFP281 plays bifuctinal roles in regulating gene expression in stem cells.

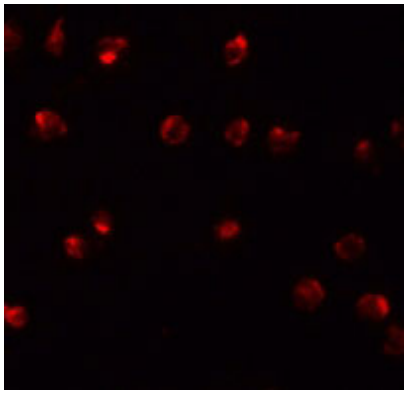
References

Law DJ, Du M, Law GL, et al. ZBP-99 defines a conserved family of transcription factors and regulates ornithine decarboxylase gene expression. Biochem. Biophys. Res. Commun. 1999; 262:113-20.
Zhang X, Diab IH, and Zehner ZE. ZBP-89 represses vimentin gene transcription by interacting with the transcriptional activator, Sp1. Nuc. Acids Res. 2003; 31:2900-14.
Wang ZX, Teh CHL, Chan CMY, et al. The transcription factor Zfp281 controls embryonic stem cell pluripotency by direct activation and repression of target genes. Stem Cells 2008; 26:2791-9

Images



Western blot analysis of ZFP281 in A-20 cell lysate with ZFP281 antibody at (A) 0.25 and (B) 0.5 µg/mL.



Immunofluorescence of ZFP291 in A20 cells with ZFP291 antibody at 20 µg/mL.