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ZSCAN4 Antibody

Catalog # ASC11070

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q8NAM6
Other Accession	NP_689890.1, 22749365
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	48957
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	ZSCAN4 antibody can be used for detection of ZSCAN4 by Western blot. Antibody can also be used for immunohistochemistry starting at 5 □g/mL. For immunofluorescence start at 20 □g/mL.

Additional Information

Gene ID	201516
Other Names	Zinc finger and SCAN domain-containing protein 4, Zinc finger protein 494, ZSCAN4, ZNF494
Target/Specificity	ZSCAN4;
Reconstitution & Storage	ZSCAN4 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	ZSCAN4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ZSCAN4
Synonyms	ZNF494
Function	Embryonic stem (ES) cell-specific transcription factor required to regulate ES cell pluripotency. Binds telomeres and plays a key role in genomic stability in ES cells by regulating telomere elongation. Acts as an activator of spontaneous telomere sister chromatid exchange (T-SCE) and telomere elongation in undifferentiated ES cells (By similarity).
Cellular Location	Nucleus {ECO:0000255|PROSITE-ProRule:PRU00187}. Chromosome, telomere

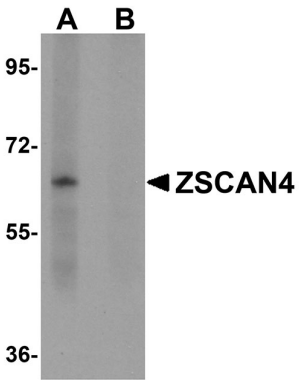
Background

ZSCAN4 Antibody: Zytotic genome activation (ZGA) is the first and most critical transition event from the maternal genetic to the embryonic genetic program and the major burst of ZGA occurs only in the late 2-cell stage. ZSCAN4 encodes a SCAN domain and four zinc finger domains and is expressed in late 2-cell embryos and embryonic stem cells. Loss-of-function studies using siRNA shows delays in the progression from the 2-cell to the 4-cell stage and subsequent embryo development. ZSCAN4 plays an important role in the preimplantation development. Also, ZSCAN4 is involved in telomere maintenance and long term genomic stability in ES cells, suggesting that ZSCAN4 may be of critical importance in maintaining pluripotency in replicating stem cells.

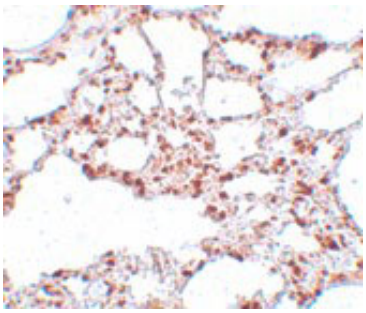
References

Hamatani T, Carter MG, Sharov AA, et al. Dynamics of global gene expression changes during mouse preimplantation development. Dev. Cell 2004; 6:117-131.
Falco G, Lee SL, Stanghellini I, et al. Zscan4: a novel gene expressed exclusively in late 2-cell embryos and embryonic stem cells. Dev. Biol. 2007; 307:539-50.
Zalzman M, Falco G, Sharova LV, et al. Zscan4 regulates telomere elongation and genomic stability in ES cells. Nature 2010; 464:858-63.

Images

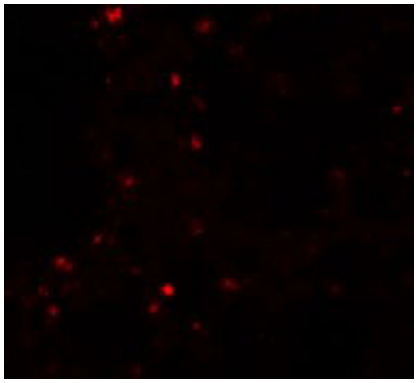


Western blot analysis of ZSCAN4 in mouse lung tissue lysate with ZSCAN4 antibody in (A) the absence and (B) presence of blocking peptide.



Immunohistochemistry of ZSCAN4 in rat lung tissue with ZSCAN4 antibody at 5 µg/mL.

Immunofluorescence of ZSCAN4 in Rat Lung tissue with ZSCAN4 antibody at 20 µg/mL.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.