

ZNF521 Antibody

Catalog # ASC11486

Product Information

Application	WB, IF, ICC, E
Primary Accession	Q96K83
Other Accession	NP_056276 , 24308069
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	147866
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	ZNF521 antibody can be used for detection of ZNF521 by Western blot at 1 μ g/mL. Antibody can also be used for immunocytochemistry starting at 2.5 μ g/mL. For immunofluorescence start at 2.5 μ g/mL.

Additional Information

Gene ID	25925
Other Names	Zinc finger protein 521, Early hematopoietic zinc finger protein, LYST-interacting protein 3, ZNF521, EHZF, LIP3
Target/Specificity	ZNF521; ZNF521 antibody is human specific.
Reconstitution & Storage	ZNF521 antibody can be stored at 4°C for three months and -20°C, 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	ZNF521 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ZNF521
Synonyms	EHZF, LIP3
Function	Transcription factor that can both act as an activator or a repressor depending on the context. Involved in BMP signaling and in the regulation of the immature compartment of the hematopoietic system. Associates with SMADs in response to BMP2 leading to activate transcription of BMP target genes. Acts as a transcriptional repressor via its interaction with EBF1, a transcription factor involved specification of B-cell lineage; this interaction preventing EBF1 to bind DNA and activate target genes.

Cellular Location	Nucleus.
Tissue Location	Predominantly expressed in hematopoietic cells. Present in organs and tissues that contain stem and progenitor cells, myeloid and/or lymphoid: placenta, spleen, lymph nodes, thymus, bone marrow and fetal liver. Within the hematopoietic system, it is abundant in CD34(+) cells but undetectable in mature peripheral blood leukocytes, and its levels rapidly decrease during the differentiation of CD34(+) cells in response to hemopoietins

Background

ZNF521 Antibody: The zinc finger protein 521 (ZNF521) is a transcription factor containing an N-terminal transcriptional repressor motif and 30 zinc finger domains. It plays a role in both erythroid cell and osteoblast differentiation during development, inhibiting the activities of early B-cell factor 1 (EBF1) in erythroid cells and Runx2 in osteoblast precursors. ZFP521 binds to both Runx2 and histone deacetylase 3 (HDAC3), promotes their association and antagonizes Runx2 transcriptional activity in a HDAC3-dependent manner, thereby regulating osteoblast differentiation, skeletal development, and bone homeostasis.

References

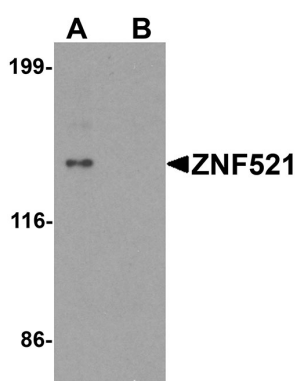
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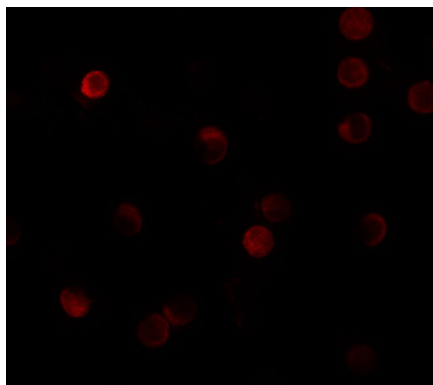
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Wu M, Hesse E, Morvan F, et al. Zfp521 antagonizes Runx2, delays osteoblast differentiation in vitro, and promotes bone formation in vivo. *Bone* 2009; 44:528-36.

Hesse E, Saito H, Kiviranta R, et al. Zfp521 controls bone mass by HDAC3-dependent attenuation of Runx2 activity. *J. Cell Biol.* 2010; 191:1271-83

Images





Immunofluorescence of ZNF521 in HeLa cells with ZNF521 antibody at 20 $\mu\text{g/mL}$.

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