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SP7/Osterix Rabbit pAb

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Catalog # AP52300

Product Information

Application	WB
Primary Accession	Q8TDD2
Reactivity	Mouse
Predicted	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	44994
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SP7
Epitope Specificity	271-380/431
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nucleus.
DISEASE	Osteogenesis imperfecta 12 (OI12) [MIM:613849]: A form of osteogenesis imperfecta, a connective tissue disorder characterized by low bone mass, bone fragility and susceptibility to fractures after minimal trauma. Disease severity ranges from very mild forms without fractures to intrauterine fractures and perinatal lethality. Extraskeletal manifestations, which affect a variable number of patients, are dentinogenesis imperfecta, hearing loss, and blue sclerae. OI12 is an autosomal recessive form characterized by recurrent fractures, mild bone deformations, generalized osteoporosis, delayed teeth eruption, no dentinogenesis imperfecta, normal hearing, and white sclerae. Note=The disease is caused by mutations affecting the gene represented in this entry.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a member of the Sp subfamily of Sp/XKLF transcription factors. Sp family proteins are sequence-specific DNA-binding proteins characterized by an amino-terminal trans-activation domain and three carboxy-terminal zinc finger motifs. This protein is a bone specific transcription factor and is required for osteoblast differentiation and bone formation.[provided by RefSeq, Jul 2010]

Additional Information

Gene ID	121340
Other Names	Transcription factor Sp7, Zinc finger protein osterix, SP7, OSX
Dilution	WB=1:500-2000,ELISA=1:5000-10000

Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	SP7
Synonyms	OSX
Function	Transcriptional activator essential for osteoblast differentiation (PubMed:23457570). Binds to SP1 and EKLF consensus sequences and to other G/C-rich sequences (By similarity).
Cellular Location	Nucleus {ECO:0000250|UniProtKB:Q8VI67}.
Tissue Location	Restricted to bone-derived cell.

Background

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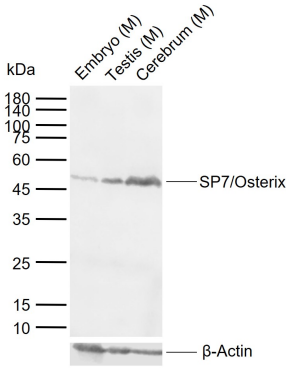
References

Nakashima K.,et al.Cell 108:17-29(2002).
Milona M.-A.,et al.BMC Genomics 4:43-43(2003).
Gao Y.,et al.Gene 341:101-110(2004).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Scherer S.E.,et al.Nature 440:346-351(2006).

Images



Sample:
Lane 1: Mouse Embryo tissue lysates
Lane 2: Mouse Testis tissue lysates
Lane 3: Mouse Cerebrum tissue lysates
Primary: Anti-SP7/Osterix (AP52300) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 45 kDa
Observed band size: 47 kDa