SunLong Biotech Co.,LTD
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[Primary Antibody]

Rabbit Anti-Sclerostin antibody

Catalog Number: SL6194R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Sclerostin
Immunogen:	KLH conjugated synthetic peptide derived from human Sclerostin: 151-213/213
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	WB=1:500-2000 IHC-P=1:100-500 IHC-F=1:100-500 IF=1:100-500 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human,Mouse,Rat(predicted:Dog,Pig,Cow,Horse,Rabbit,Sheep)
Predicted MW.:	21kDa
Subcellular Location:	Secretory protein
Background:	Negative regulator of bone growth.Sclerostin (SOST) is a bone morphogenetic protein (BMP) antagonist, leading to the activation of BMP signaling. It negatively regulates the formation of bone by repressing the differentiation and/or function of osteoblasts induced by BMPs. It has been shown that Sclerostin binds BMP-5, -6, and -7 with high affinity and BMP-2 and -4 with low affinity. The noggin-sclerostin protein complex represents a novel mechanism for the fine-tuning of BMP activity in bone homeostasis. Evidence is accumulating that one of the important mechanisms of bone regulation by sclerostin is the modulation of Wnt/Beta-catenin signaling. Sclerostin also rapidly activated ERK-1/2 MAPK signaling, indicating the involvement of additional signaling pathways.

Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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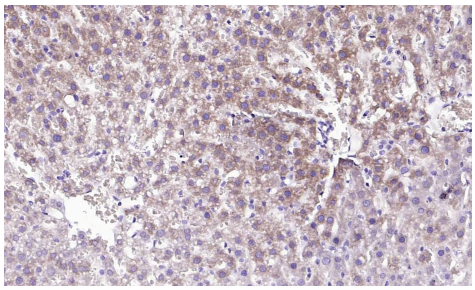
	Function: Negative regulator of bone growth that acts through inhibition of Wnt signaling and bone formation. **Subunit:** Interacts with LRP4 (via the extracellular domain); the interaction facilitates the inhibition of Wnt signaling. Interacts with LRP5 (via the first two YWTD-EGF repeat domains); the interaction inhibits Wnt-mediated signaling. Interacts with LRP6. **Subcellular Location:** Secreted. **Tissue Specificity:** Widely expressed at low levels with highest levels in bone, cartilage, kidney, liver, bone marrow and primary osteeoblasts differentiated for 21 days. DISEASE: Defects in SOST are the cause of sclerosteosis type 1 (SOST1) [MIM:269500]. An autosomal recessive sclerosing bone dysplasia characterized by a generalized hyperostosis and sclerosis leading to a markedly thickened skull, with mandible, ribs, clavicles and all long bones also being affected. Due to narrowing of the foramina of the cranial nerves, facial nerve palsy, hearing loss and atrophy of the optic nerves can occur. Sclerosteosis is clinically and radiologically very similar to van Buchem disease, mainly differentiated by hand malformations and a large stature in sclerosteosis patients. Defects in SOST are a cause of van Buchem disease (VBCH) [MIM:239100]. An autosomal recessive sclerosing bone dysplasia characterized by endosteal hyperostosis of the mandible, skull, ribs, clavicles, and diaphyses of the long bones. Affected patients present a symmetrically increased thickness of bones, most frequently found as an enlarged jawbone, but also an enlargement of the skull, ribs, diaphysis of long bones, as well as tubular bones of hands and feet. The clinical consequence of increased thickness of the skull include facial nerve palsy causing hearing loss, visual problems, neurological pain, and, very rarely, blindness as a consequence of optic atrophy. Serum alkaline phosphatase levels are elevated. Note=A 52 kb deletion downstream of SOST results in SOST transcription suppression causing van Buchem disease. Defects in SOST are a cause of craniodiaphyseal dysplasia autosomal dominant (CDD) [MIM:122860]. A severe bone dysplasia characterized by massive generalized hyperostosis and sclerosis, especially involving the skull and facial bones. The sclerosis is so severe that the resulting facial distortion is referred to as 'leontiasis ossea' (leonine faces) and the bone deposition results in progressive stenosis of craniofacial foramina. Respiratory obstruction due to choanal stenosis compromises the clinical outcomes of affected patients. Note=Heterozygous mutations located in the secretion signal of the SOST gene prevent sclerostin secretion and can be responsible for craniodiaphyseal dysplasia.

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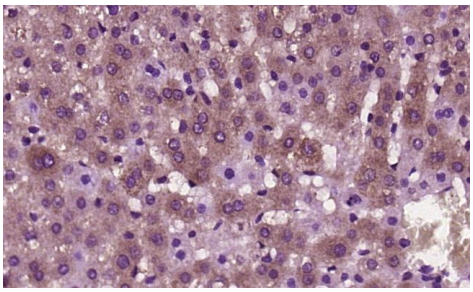
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	Similarity: Belongs to the sclerostin family. Contains 1 CTCK (C-terminal cystine knot-like) domain. **Database links:** **Entrez Gene:** 50964 Human **Entrez Gene:** 74499 Mouse Omim: 605740 Human **SwissProt:** Q9BQB4 Human **SwissProt:** Q99P68 Mouse **Unigene:** 349204 Human **Unigene:** 265602 Mouse

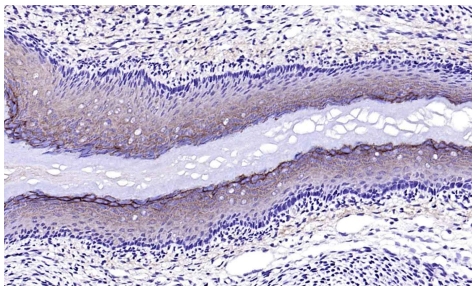
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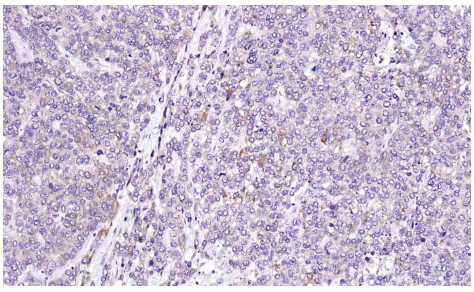
Paraformaldehyde-fixed, paraffin embedded (Rat liver); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Sclerostin) Polyclonal Antibody, Unconjugated (SL6194R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Rat liver); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Sclerostin) Polyclonal Antibody, Unconjugated (SL6194R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (rat bone); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Sclerostin) Polyclonal Antibody, Unconjugated (SL6194R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (human liver carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Sclerostin) Polyclonal Antibody, Unconjugated (SL6194R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

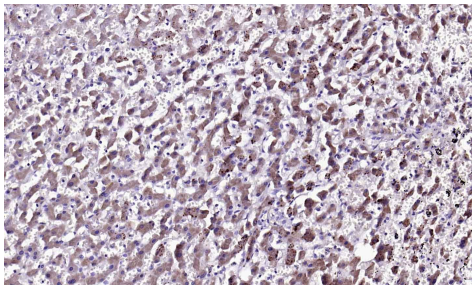
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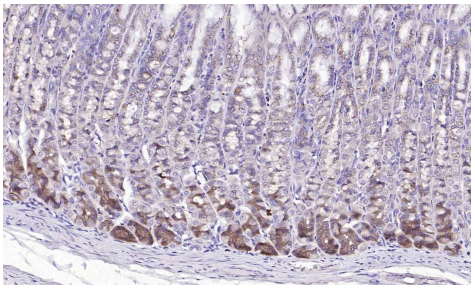
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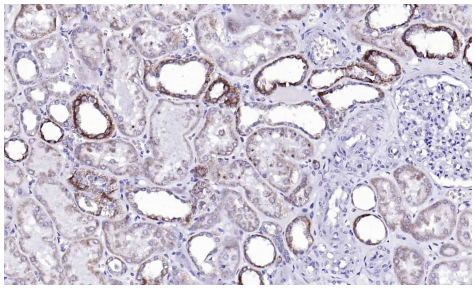
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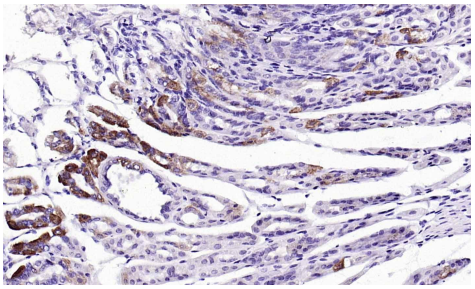
Paraformaldehyde-fixed, paraffin embedded (human liver); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Sclerostin) Polyclonal Antibody, Unconjugated (SL6194R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (rat stomach); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Sclerostin) Polyclonal Antibody, Unconjugated (SL6194R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (human kidney); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Sclerostin) Polyclonal Antibody, Unconjugated (SL6194R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (mouse stomach); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Sclerostin) Polyclonal Antibody, Unconjugated (SL6194R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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