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IBSP Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14114a

Product Information

Application	WB, E
Primary Accession	P21815
Other Accession	NP_004958.2
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34106
Calculated MW	35148
Antigen Region	70-99

Additional Information

Gene ID	3381
Other Names	Bone sialoprotein 2, Bone sialoprotein II, BSP II, Cell-binding sialoprotein, Integrin-binding sialoprotein, IBSP, BNSP
Target/Specificity	This IBSP antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 70-99 amino acids from the N-terminal region of human IBSP.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	IBSP Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	IBSP
Synonyms	BNSP
Function	Binds tightly to hydroxyapatite (PubMed: 11459848). Appears to form an

	integral part of the mineralized matrix (PubMed:1818768). Probably important to cell-matrix interaction (PubMed:1818768). Promotes adhesion and migration of various cells via the alpha-V/beta-3 integrin receptor (ITGAV:ITGB3) (PubMed:10640428, PubMed:11459848, PubMed:24103036).
Cellular Location	Secreted.
Tissue Location	Expressed in bone (at protein level) (PubMed:11459848). Expressed in trophoblast cells of placenta (at protein level) (PubMed:1818768). Expressed in brain (PubMed:36261010)

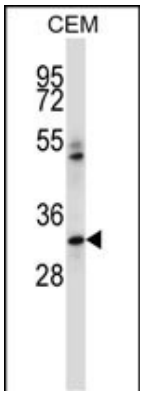
Background

The protein encoded by this gene is a major structural protein of the bone matrix. It constitutes approximately 12% of the noncollagenous proteins in human bone and is synthesized by skeletal-associated cell types, including hypertrophic chondrocytes, osteoblasts, osteocytes, and osteoclasts. The only extraskeletal site of its synthesis is the trophoblast. This protein binds to calcium and hydroxyapatite via its acidic amino acid clusters, and mediates cell attachment through an RGD sequence that recognizes the vitronectin receptor.

References

Giroux, S., et al. Bone 47(5):975-981(2010)
Koller, D.L., et al. J. Clin. Endocrinol. Metab. 95(4):1802-1809(2010)
Yerges, L.M., et al. J. Bone Miner. Res. 24(12):2039-2049(2009)
Gordon, J.A., et al. J. Cell. Biochem. 107(6):1118-1128(2009)
Hwang, Q., et al. BMC Cancer 9, 121 (2009) :

Images



IBSP Antibody (N-term) (Cat. #AP14114a) western blot analysis in CEM cell line lysates (35ug/lane).This demonstrates the IBSP antibody detected the IBSP protein (arrow).

Citations

- Targeting Local Osteogenic and Ancillary Cells by Mechanobiologically Optimized Magnesium Scaffolds for Orbital Bone Reconstruction in Canines
- CircRNA-vgll3 promotes osteogenic differentiation of adipose-derived mesenchymal stem cells via modulating miRNA-dependent integrin α5 expression

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