

#5468 Store at -20°C

BSP II Antibody


Cell Signaling
TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: WB, IP	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 82	Source: Rabbit	UniProt ID: #P21815	Entrez-Gene Id: 3381
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Product Usage Information

Application

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity / Sensitivity

The BSP II Antibody detects endogenous levels of total BSP II protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human BSP II protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Bone sialoprotein II (BSP II) exists as a secreted protein in extracellular matrix of the skeleton (1-2). BSP II is part of the small integrin binding ligand N-linked glycoprotein (SIBLING) family and its role is crucial for cell to matrix adhesion as well as between two active protein complexes (3). Flexible binding capacity of BSP II also allows it to rapidly associate with various proteins, calcium, and mineralized phases of developing bone (3-5). BSP II plays a central role in the initiation of hydroxyapatite microcalcification of breast cancer cells that contributes to the pathogenesis of bone metastasis (4,6,7). Recent evidence suggests that the downregulation of BSP II may lead to the reduced formation of metastatic lesions and bone metastasis in a human breast cancer model (5).

Background References

1. Papagerakis, P. et al. (2002) *Bone* 30, 377-85.
2. Bellahcène, A. et al. (1994) *Cancer Res* 54, 2823-6.
3. Fisher, L.W. et al. (2001) *Biochem Biophys Res Commun* 280, 460-5.
4. Castronovo, V. and Bellahcene, A. (1998) *Int J Oncol* 12, 305-8.
5. Adwan, H. et al. (2004) *Cancer Gene Ther* 11, 109-20.
6. Diel, I.J. et al. (1999) *Clin Cancer Res* 5, 3914-9.
7. Sharp, J.A. et al. (1999) *Lab Invest* 79, 869-77.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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