
DMP1 Rabbit pAb

Catalog Number: bs-25502R

Target Protein: DMP1

Concentration: 1mg/ml

Form: Liquid

Host: Rabbit

Clonality: Polyclonal

Isotype: IgG

Applications: WB (1:500-2000), IHC-P (1:100-500), IHC-F (1:100-500), IF (1:100-500)

Reactivity: Mouse (predicted:Human, Rat, Sheep, Cow, Horse)

Predicted MW: 54 kDa

Subcellular: Secreted ,Extracellular matrix ,Cytoplasm ,Nucleus

Locations:

Entrez Gene: 1758

Swiss Prot: Q13316

Source: KLH conjugated synthetic peptide derived from human DMP1: 441-513/513.

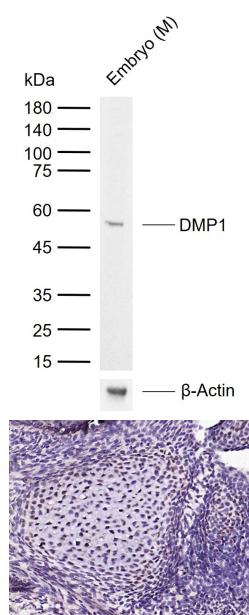
Purification: affinity purified by Protein A

Storage: 0.01M TBS(pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Background: DMP-1 is a member of the small integrin ligand N-linked glycoprotein family. It is important for the mineralization of bone and dentin. DMP-1 is expressed in bone, tooth and hypertrophic cartilage. It is synthesized by preosteoblasts and contains a large number of acidic domains. DMP-1 localizes to the nucleus of undifferentiated osteoblasts where it functions as a transcriptional regulator for osteoblast-specific gene activation and induces osteoblast differentiation. During osteoblast maturation, DMP-1 undergoes a conformational change and becomes phosphorylated by casein kinase II in response to an influx of calcium ions to the nucleus. DMP-1 is then exported to the extracellular matrix (ECM) where it regulates the nucleation of hydroxyapatite and the formation of calcified tissue. DMP-1 is proteolytically processed into N- and C-terminal fragments in the ECM of bone and dentin. The protein has also been identified in bone as a high molecular weight proteoglycan comprised of the N-terminal DMP-1 fragment and chondroitin sulfate. The loss of DMP-1 can result in hypomineralized bone.

VALIDATION IMAGES



Sample: Lane 1: Mouse Embryo tissue lysates Primary: Anti-DMP1 (bs-25502R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 54 kDa Observed band size: 56 kDa

Paraformaldehyde-fixed, paraffin embedded (Mouse 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; Incubation with (DMP1) Polyclonal Antibody, Unconjugated (bs-25502R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.

PRODUCT SPECIFIC PUBLICATIONS

[IF=10.2] Lu Hui. et al. Functional extracellular vesicles from SHEDs combined with gelatin methacryloyl promote the odontogenic differentiation of DPSCs for pulp regeneration. J NANOBIOTECHNOL. 2024 Dec;22(1):1-18 IHC,WB ; Mouse,Human . 38760763

[IF=8.7] Lixin Zhang. et al. Thermosensitive injectable in situ forming hydrogel incorporating anti-oxidative stress and anti-inflammatory nanoparticles for vital pulp therapy of pulpitis. materials today bio.2025 Jan 23;31:101482. IHC ; Rat . 39944531