DMP1 Rabbit pAb

CatalogNo: YN0112 Orthogonal Validated

Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse,Rat

Applications
- WB,ELISA

MW
- 56kD (Observed)

Isotype
- IgG

Recommended Dilution Ratios

WB 1:500-2000
ELISA 1:5000-20000

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Basic Information

Clonality	Polyclonal

Immunogen Information

Immunogen	Synthesized peptide derived from human protein . at AA range: 430-510
Specificity	DMP1 Polyclonal Antibody detects endogenous levels of protein.

Target Information

Gene name	DMP1

Protein Name Dentin matrix acidic phosphoprotein 1 (DMP-1) (Dentin matrix protein 1)

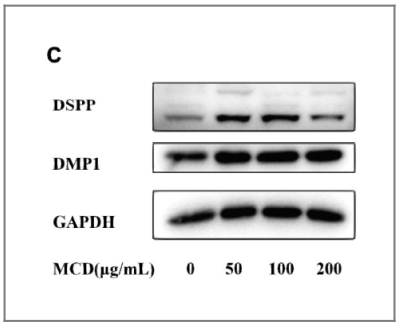
Organism	Gene ID	UniProt ID
Human	1758;	Q13316;
Mouse		O55188;
Rat		P98193;

Cellular Localization Nucleus . Cytoplasm . Secreted, extracellular space, extracellular matrix . In proliferating preosteoblasts it is nuclear, during early maturation stage is cytoplasmic and in mature osteoblast localizes in the mineralized matrix. Export from the nucleus of differentiating osteoblast is triggered by the release of calcium from intracellular stores followed by a massive influx of this pool of calcium into the nucleus.

Tissue specificity Expressed in tooth particularly in odontoblast, ameloblast and cementoblast.

Function Disease:Defects in DMP1 are the cause of autosomal recessive hypophosphatemic rickets (ARHR) [MIM:241520]. ARHR is characterized by rickets, osteomalacia, elevated FGF23 serum levels and hypophosphatemia.,Function:May have a dual function during osteoblast differentiation. In the nucleus of undifferentiated osteoblasts, unphosphorylated form acts as a transcriptional component for activation of osteoblast-specific genes like osteocalcin. During the osteoblast to osteocyte transition phase it is phosphorylated and exported into the extracellular matrix, where it regulates nucleation of hydroxyapatite.,PTM:Phosphorylated in the cytosol and extracellular matrix and unphosphorylated in the nucleus. Phosphorylation is necessary for nucleocytoplasmic transport and may be catalyzed by a nuclear isoform of CK2 and can be augmented by calcium.,subcellular location:In proliferating preosteoblasts it is nuclear, during early maturation stage is cytoplasmic and in mature osteoblast localizes in the mineralizated matrix. Export from the nucleus of differentiating osteoblast is triggered by the release of calcium from intracellular stores followed by a massive influx of this pool of calcium into the nucleus.,subunit:Interacts with importin alpha.,tissue specificity:Expressed in tooth particularly in odontoblast, ameloblast and cementoblast.,

Validation Data



Metformin carbon nanodots promote odontoblastic differentiation of dental pulp stem cells by pathway of autophagy. Frontiers in Bioengineering and Biotechnology Yi Li WB Human

Contact information

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