

Rabbit DMP1 Polyclonal Antibody | anti-DMP1 antibody

DMP1 Polyclonal Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA268824	Rabbit	Human, Mouse, Rat	Western Blot, ELISA, Immunofluorescence, Immunohistochemistry

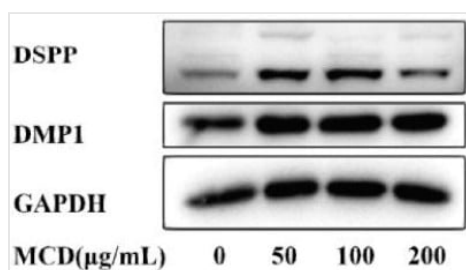
PRODUCT SYNONYMS

DMP1; Polyclonal Antibody; DMP1 Polyclonal Antibody; anti-DMP1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	DMP1 Polyclonal Antibody detects endogenous levels of protein.
Purity/Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Form/Format	Liquid in PBS containing 50% glycerol, and 0.02% sodium azide
Concentration	1 mg/ml (varies by lot)
Sequence Length	497
Applicable Applications for anti-DMP1 antibody	WB (Western Blot), ELISA, IF (Immunofluorescence), IHC (Immunohistochemistry)
Immunogen	Synthesized peptide derived from human protein . at AA range: 430-510
Subcellular Location	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.
Expression	Expressed in tooth particularly in odontoblast, ameloblast and cementoblast.
Preparation and Storage	Store at -15 degree C to -25 degree C/1 year (Do not lower than -25 degree C)

IMAGES


WB (Western Blot)

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

ADDITIONAL INFORMATION

Related Product Information for anti-DMP1 antibody	Dentin matrix acidic phosphoprotein is an extracellular matrix protein and a member of the small integrin binding ligand N-linked glycoprotein family. This protein, which is critical for proper mineralization of bone and dentin, is present in diverse cells of bone and tooth tissues. The protein contains a large number of acidic domains, multiple phosphorylation sites, a functional arg-gly-asn cell attachment sequence, and a DNA binding domain. In undifferentiated osteoblasts it is primarily a nuclear protein that regulates the expression of osteoblast-specific genes. During osteoblast maturation the protein becomes phosphorylated and is exported to the extracellular matrix, where it orchestrates mineralized matrix formation. Mutations in the gene are known to cause autosomal recessive hypophosphatemia, a disease that manifests as rickets and osteomalacia. The gene structure is conserved. 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.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	121256621
NCBI GeneID	1758
NCBI Accession #	NP_001073380.1
NCBI GenBank Nucleotide #	NP_001073380.1
UniProt Accession #	Q13316
Molecular Weight	Observed Band(KD):56kD
NCBI Official Full Name	dentin matrix acidic phosphoprotein 1 isoform 2
NCBI Official Synonym Full Names	dentin matrix acidic phosphoprotein 1
NCBI Official Symbol	DMP1
NCBI Official Synonym Symbols	ARHP; ARHR; DMP-1
NCBI Protein Information	dentin matrix acidic phosphoprotein 1
UniProt Protein Name	Dentin matrix acidic phosphoprotein 1
UniProt Gene Name	DMP1
UniProt Synonym Gene Names	DMP-1; Dentin matrix protein 1
UniProt Entry Name	DMP1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.