



DMP1 rabbit pAb

Cat No.:ES9058

For research use only

Overview

Product Name	DMP1 rabbit pAb
Host species	Rabbit
Applications	WB;ELISA
Species Cross-Reactivity	Human;Rat;Mouse;
Recommended dilutions	WB 1:500-2000 ELISA 1:5000-20000
Immunogen	Synthesized peptide derived from human protein . at AA range: 430-510
Specificity	DMP1 Polyclonal Antibody detects endogenous levels of protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Storage	Store at -20°C . Avoid repeated freeze-thaw cycles.
Protein Name	Dentin matrix acidic phosphoprotein 1 (DMP-1) (Dentin matrix protein 1)
Gene Name	DMP1
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.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Clonality	Polyclonal
Concentration	1 mg/ml
Observed band	56kD
Human Gene ID	1758
Human Swiss-Prot Number	Q13316
Alternative Names	





Background

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-asp 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.

