

## Datasheet for ABIN7317461 **DMP1 Protein (His tag)**

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### Overview

Quantity:	100 µg
Target:	DMP1 (DMTF1)
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This DMP1 protein is labelled with His tag.

### Product Details

Purpose:	Recombinant Human DMP1 Protein (His Tag)(Active)
Sequence:	Met 1-Tyr 513
Characteristics:	A DNA sequence encoding the human DMP1 (Q13316-1) (Met 1-Tyr 513) was expressed, with a polyhistidine tag at the C-terminus.
Purity:	> 85 % as determined by reducing SDS-PAGE.
Endotoxin Level:	< 1.0 EU per µg as determined by the LAL method.
Biological Activity Comment:	Measured by its ability to bind human CFH in a functional ELISA.

### Target Details

Target:	DMP1 (DMTF1)
Alternative Name:	DMP1 ( <a href="#">DMTF1 Products</a> )

## Target Details

Background:	<p>Background: Dentin matrix acidic phosphoprotein (DMP1) 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. DMP1 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, DMP1 becomes phosphorylated and is exported to the extracellular matrix, where it orchestrates mineralized matrix formation. Mutations in DMP1 are known to cause autosomal recessive hypophosphatemia, a disease that manifests as rickets and osteomalacia. DMP1 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.</p> <p>Synonym: Dentin Matrix Acidic Phosphoprotein 1, DMP-1, Dentin Matrix Protein 1, DMP1,ARHP,ARHR</p>
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Molecular Weight:	55.4 kDa
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## Application Details

Restrictions:	For Research Use only
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## Handling

Format:	Lyophilized
Reconstitution:	Please refer to the printed manual for detailed information.
Buffer:	Lyophilized from sterile PBS, pH 7.4
Storage:	4 °C,-20 °C,-80 °C
Storage Comment:	<p>Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at &lt; -20°C for 3 months.</p>