

# Bovine Dentin matrix acidic phosphoprotein 1 (DMP1) ELISA Kit



Catalog No: #EK10590

Orders: [order@signalwayantibody.com](mailto:order@signalwayantibody.com)

Package Size: #EK10590-1 48T #EK10590-2 96T

Support: [tech@signalwayantibody.com](mailto:tech@signalwayantibody.com)

## Description

Product Name	Bovine Dentin matrix acidic phosphoprotein 1 (DMP1) ELISA Kit
Brief Description	ELISA Kit
Applications	ELISA
Species Reactivity	Bovine (Bos taurus; Cattle)
Other Names	ARHP; ARHR; DMP-1; dentin matrix protein 1
Accession No.	Q95120
Uniprot	Q95120
Storage	<p>The stability of ELISA kit is determined by the loss rate of activity. The loss rate of this kit is less than 5% within the expiration date under appropriate storage condition.</p> <p>The loss rate was determined by accelerated thermal degradation test. Keep the kit at 37C for 4 and 7 days, and compare O.D.values of the kit kept at 37C with that of at recommended temperature. (referring from China Biological Products Standard, which was calculated by the Arrhenius equation. For ELISA kit, 4 days storage at 37C can be considered as 6 months at 2 - 8C, which means 7 days at 37C equaling 12 months at 2 - 8C).</p>

## Application Details

Detect Range:Request Information

Sensitivity:Request Information

Sample Type:Serum, Plasma, Other biological fluids

Sample Volume: 1-200 µL

Assay Time:1-4.5h

Detection wavelength:450 nm

## Product Description

**Detection Method:**SandwichTest principle:This assay employs a two-site sandwich ELISA to quantitate DMP1 in samples. An antibody specific for DMP1 has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and anyDMP1 present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for DMP1 is added to the wells. After washing, Streptavidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of DMP1 bound in the initial step. The color development is stopped and the intensity of the color is measured.**Product Overview:**DMP1 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 in mammals. Two transcript variants encoding different isoforms have been described for this gene.

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Note: This product is for in vitro research use only