

## Product datasheet

# Recombinant Human DMP1 protein ab158291

[1 Image](#)

### Description

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<b>Product name</b>	Recombinant Human DMP1 protein
<b>Expression system</b>	Wheat germ
<b>Accession</b>	<b><u>Q13316</u></b>
<b>Protein length</b>	Protein fragment
<b>Animal free</b>	No
<b>Nature</b>	Recombinant
<b>Species</b>	Human
<b>Sequence</b>	ESIRSERGNSRMNSAGMKSKEGENSEQANTQDSGGSQ LLEHPSRKIFRK SRISEEDDRSELDDNNTMEEVKSDSTENSNSRDTGLSQP RRDSKGDSQED SKENLSQEES
<b>Amino acids</b>	221 to 330
<b>Tags</b>	GST tag N-Terminus

### Specifications

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Our **Abpromise guarantee** covers the use of **ab158291** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<b>Applications</b>	ELISA Western blot
<b>Form</b>	Liquid

### Additional notes

### Preparation and Storage

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<b>Stability and Storage</b>	Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles. pH: 8.00 Constituents: 0.31% Glutathione, 0.79% Tris HCl
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## General Info

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### Relevance

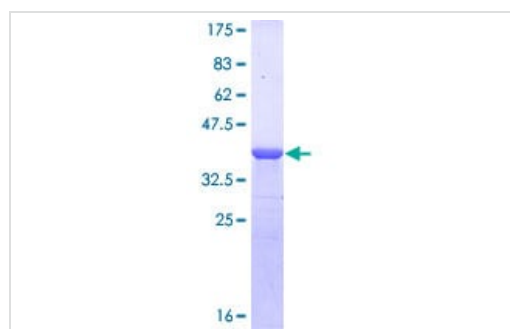
DMP1 is an extracellular matrix protein and a member of the small integrin binding ligand N-linked glycoprotein family. It is critical for proper mineralization of bone and dentin, and is present in diverse cells of bone and tooth tissues. DMP1 contains a large number of acidic domains, multiple phosphorylation sites, a functional arg-gly-asp cell attachment sequence, and a DNA binding domain. DMP1 may also have a dual function during osteoblast differentiation. In the nucleus of undifferentiated osteoblasts the 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.

### Cellular localization

Nucleus. Cytoplasm. Secreted; extracellular space; extracellular matrix. Note=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.

## Images

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ab158291 on a 12.5% SDS-PAGE stained with Coomassie Blue.

SDS-PAGE - Recombinant Human DMP1 protein  
(ab158291)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
  
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

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