

## Product datasheet

# Anti-DMP1 antibody ab103203

★★★★☆ 5 Abreviews 4 References 2 Images

### Overview

<b>Product name</b>	Anti-DMP1 antibody
<b>Description</b>	Rabbit polyclonal to DMP1
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse, Cow
<b>Immunogen</b>	Synthetic peptide of Human DMP1. Read Abcam's proprietary immunogen policy
<b>Positive control</b>	This antibody gave a positive signal in Human bone marrow tissue lysate.

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	Preservative: 0.02% Sodium Azide Constituents: 1% BSA, PBS, pH 7.4
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

### Applications

Our [Abpromise guarantee](#) covers the use of **ab103203** in the following tested applications.

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

Application	Abreviews	Notes
WB	★★★★☆	Use a concentration of 1 µg/ml. Detects a band of approximately 55 kDa (predicted molecular weight: 55 kDa).
ICC/IF	★★★★★	Use at an assay dependent concentration.

## Target

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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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Western blot - Anti-DMP1 antibody (ab103203)

Anti-DMP1 antibody (ab103203) at 1 µg/ml +  
Bone Marrow (Human) Tissue Lysate - adult  
normal tissue at 10 µg

### Secondary

Goat Anti-Rabbit IgG H&L (HRP) preadsorbed  
([ab97080](#)) at 1/5000 dilution

Developed using the ECL technique.

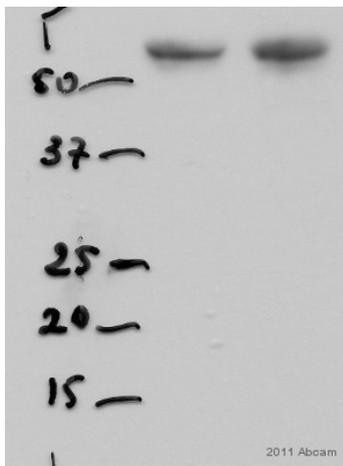
Performed under reducing conditions.

**Predicted band size:** 55 kDa

**Observed band size:** 55 kDa

**Additional bands at:** 50 kDa (possible  
truncated form)

**Exposure time:** 4 minutes



Western blot - Anti-DMP1 antibody (ab103203)

Image courtesy of an anonymous Abreview.

Anti-DMP1 antibody (ab103203) at 1/200 dilution + whole cell lysate prepared from murine bone marrow stromal osteoblasts at 20000 cells

#### Secondary

HRP-conjugated goat polyclonal at 1/120000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 55 kDa

**Observed band size:** 55 kDa

**Exposure time:** 30 seconds

Osteoblasts were treated with 50µg/ml L-ascorbic acid, 10 mM beta-glycerophosphate for 7 days.

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