

## Product datasheet

# Anti-BMP7 antibody ab56023

★★★★★ 3 Abreviews 18 References 6 Images

### Overview

<b>Product name</b>	Anti-BMP7 antibody
<b>Description</b>	Rabbit polyclonal to BMP7
<b>Host species</b>	Rabbit
<b>Specificity</b>	This antibody reacts with BMP7.
<b>Tested applications</b>	<b>Suitable for:</b> IHC-Fr, WB, IHC-P, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human <b>Predicted to work with:</b> Sheep, Rabbit, Horse, Guinea pig, Cow, Cat, Dog, Pig
<b>Immunogen</b>	Synthetic peptide: QGKHNSAPMF MLDLYNAMAV EEGGGPGGQG FSYPYKAVFS TQGPPLASLQ, corresponding to N terminal amino acids 73-122 of Human BMP7. This sequence is derived from the propeptide domain, thus, will not recognize mature BMP7. <a href="#">Run BLAST with ExPASy</a> <a href="#">Run BLAST with NCBI</a>
<b>Positive control</b>	<div style="border: 1px solid #ccc; padding: 5px; display: inline-block;"> <p>Purchase matching WB positive control: <b>Human BMP7 full length protein</b> &gt;</p> </div> <p>WB: 293T cell lysate. IHC-P: human kidney tissue.</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
<b>Storage buffer</b>	Preservative: 0.09% Sodium azide Constituents: 2% Sucrose, PBS
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

### Applications

Our [Abpromise guarantee](#) covers the use of **ab56023** in the following tested applications.

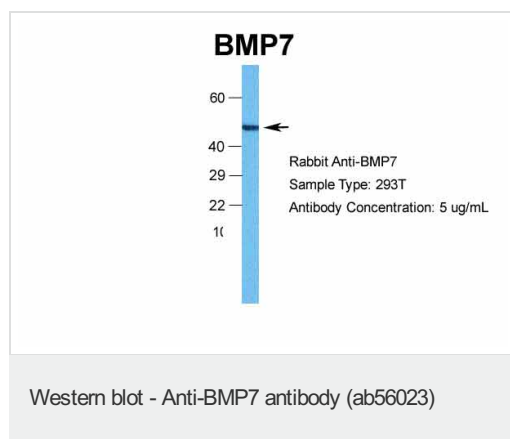
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-Fr	★★★★☆	Use at an assay dependent concentration.
WB	★★★★☆	Use a concentration of 1 - 5 µg/ml. Detects a band of approximately 49 kDa (predicted molecular weight: 49 kDa). Can be blocked with <a href="#">Human BMP7 peptide (ab111668)</a> . Good results were obtained when blocked with 5% non-fat dry milk in 0.05% PBS-T.
IHC-P		Use a concentration of 4 - 8 µg/ml.
ICC/IF		Use a concentration of 1 - 5 µg/ml.

## Target

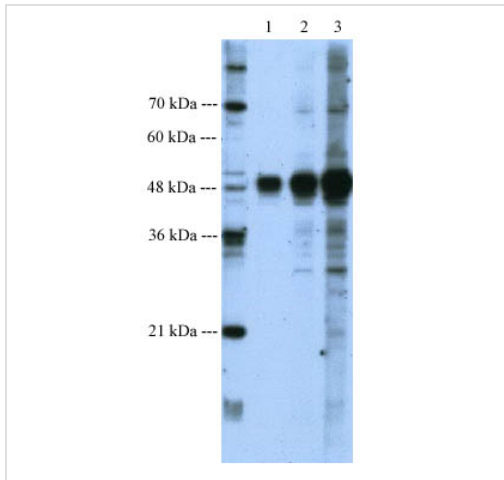
<b>Function</b>	Induces cartilage and bone formation. May be the osteoinductive factor responsible for the phenomenon of epithelial osteogenesis. Plays a role in calcium regulation and bone homeostasis.
<b>Tissue specificity</b>	Expressed in the kidney and bladder. Lower levels seen in the brain.
<b>Sequence similarities</b>	Belongs to the TGF-beta family.
<b>Developmental stage</b>	Expressed in the developing eye, brain and ear during embryogenesis.
<b>Post-translational modifications</b>	Several N-termini starting at positions 293, 300, 315 and 316 have been identified by direct sequencing resulting in secretion of different mature forms (PubMed:17977014).
<b>Cellular localization</b>	Secreted.

## Images



**Predicted band size:** 49 kDa

**Observed band size:** 49 kDa



Western blot - Anti-BMP7 antibody (ab56023)

**Lane 1** : Anti-BMP7 antibody (ab56023) at 1.25  $\mu\text{g/ml}$

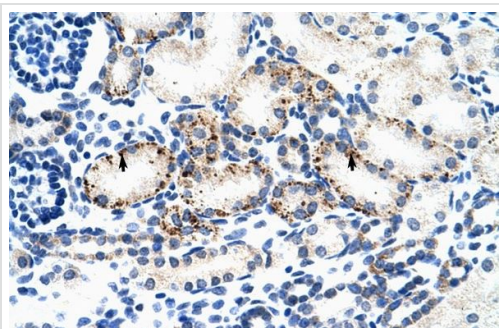
**Lane 2** : Anti-BMP7 antibody (ab56023) at 2.5  $\mu\text{g/ml}$

**Lane 3** : Anti-BMP7 antibody (ab56023) at 5  $\mu\text{g/ml}$

**All lanes** : Cell lysate prepared from BMP7 transfected 293T cells

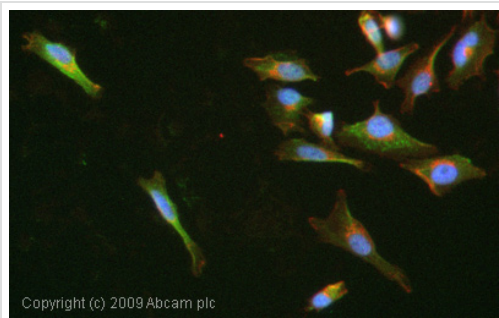
Lysates/proteins at 25  $\mu\text{g}$  per lane.

**Predicted band size:** 49 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BMP7 antibody (ab56023)

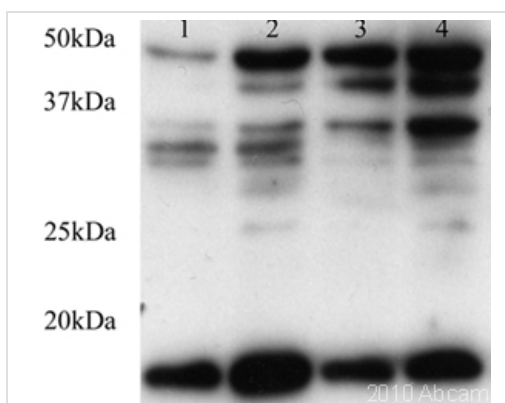
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human kidney tissue labelling BMP7 with ab56023 at 4-8 $\mu\text{g/ml}$ . Arrows indicate positively labelled epithelial cells of the renal tubule. Magnification: 400X.



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Immunocytochemistry/ Immunofluorescence - Anti-BMP7 antibody (ab56023)

ICC/IF image of ab56023 stained HeLa cells. The cells were 4% PFA fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab56023, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.



Western blot - Anti-BMP7 antibody (ab56023)

This image is courtesy of an abreview submitted by Ruma Raha-Chowdhury, University Of Cambridge, United Kingdom

**All lanes :** Anti-BMP7 antibody (ab56023) at 1/500 dilution

**Lane 1 :** Rat Brain Whole Tissue (age P8) Lysate

**Lane 2 :** Rat Brain Whole Tissue (age P15) Lysate

**Lanes 3-4 :** Rat Brain Whole Tissue (age P21) Lysate

Lysates/proteins at 20 µg per lane.

#### Secondary

**All lanes :** HRP conjugated at 1/3000 dilution

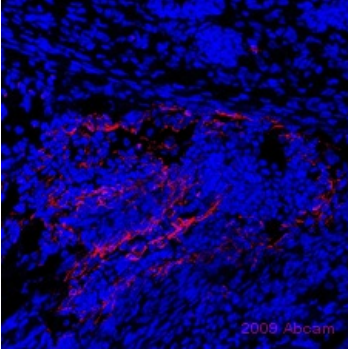
Performed under reducing conditions.

**Predicted band size:** 49 kDa

**Observed band size:** 49 kDa

**Exposure time:** 30 seconds

A number of additional non-specific bands were also observed at 17, 33, 35 & 40kDa



Immunohistochemistry (Frozen sections) - Anti-BMP7 antibody (ab56023)

This image is courtesy of an anonymous Abreview

ab56023 staining mouse e18 skeleton tissues by immunohistochemistry (frozen sections). Sections were formaldehyde fixed prior to being blocked in 20% serum for 1 hour at RT. Sample was incubated with ab56023, diluted 1/1000, for 16 hours at 4°C. Alexa fluor® 680 donkey polyclonal, diluted 1/200, was used as the secondary antibody.

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