

Product datasheet

Anti-Osteopontin antibody ab8448

★★★★★ [14 Abreviews](#) [406 References](#) [3 Images](#)

Overview

Product name	Anti-Osteopontin antibody
Description	Rabbit polyclonal to Osteopontin
Host species	Rabbit
Tested applications	Suitable for: IHC-P, ICC/IF Unsuitable for: WB
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide corresponding to Human Osteopontin aa 170-183 conjugated to keyhole limpet haemocyanin. Sequence: CKSKKFRRPDIQYPD Database link: P10451 (Peptide available as ab9078)

 [Run BLAST with](#)

 [Run BLAST with](#)

General notes

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Preservative: 0.1% Sodium azide Constituents: 0.42% Potassium phosphate, 0.87% Sodium chloride
Purity	Whole antiserum
Clonality	Polyclonal

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab8448 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-P	★★★★★ (6)	1/100 - 1/300.
ICC/IF		1/1000.

Application notes

Is unsuitable for WB.

Target

Function

Binds tightly to hydroxyapatite. Appears to form an integral part of the mineralized matrix.
Probably important to cell-matrix interaction.
Acts as a cytokine involved in enhancing production of interferon-gamma and interleukin-12 and reducing production of interleukin-10 and is essential in the pathway that leads to type I immunity.

Tissue specificity

Bone. Found in plasma.

Sequence similarities

Belongs to the osteopontin family.

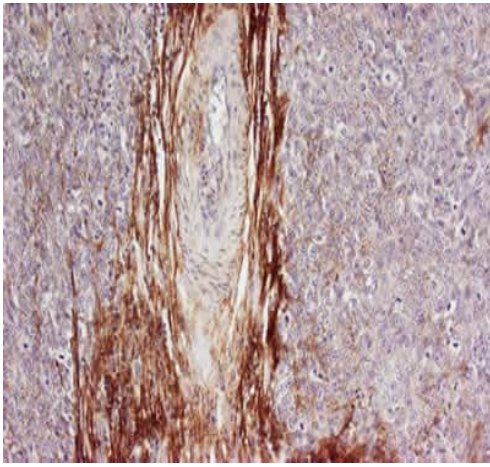
Post-translational modifications

Extensively phosphorylated on clustered serine residues.
N- and O-glycosylated.
Phosphorylation sites are present in the extracellular medium.

Cellular localization

Secreted.

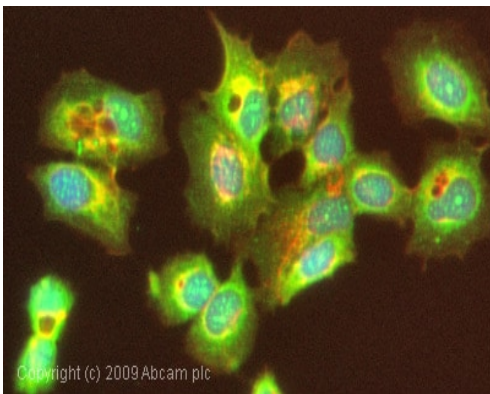
Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Osteopontin antibody (ab8448)

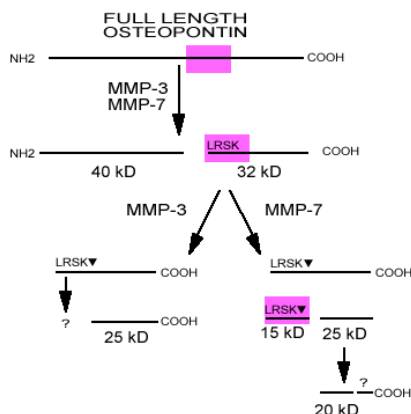
Human Breast tumour section. Osteopontin is a normal component of elastic fibers in the breast (shown heavily stained in this section). There is also weak staining of the extracellular matrix. Osteopontin is not believed to be expressed inside breast tumour cells, and there is no staining in the intracellular region of the breast cells in this section.

Osteopontin antibody (ab8448) used at 1:100-1:300. No antigen retrieval is required.



Immunocytochemistry/ Immunofluorescence - Anti-Osteopontin antibody (ab8448)

ICC/IF image of ab8448 stained MCF7 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 (ab8448, 1/1000 dilution) 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.



Schematic Diagram - Anti-Osteopontin antibody (ab8448)

This image is courtesy of Agnihotri et al, JBC 2001

OPN is cleaved by MMP to yield 2 fragments, which migrate at 40kD(N terminal) and 32kD (C terminal). The C terminal fragment can undergo further cleavage by both of these MMPs (see Agnihotri et al, JBC 2001 for further details). The epitope recognised by ab8448 is shown in violet. This antibody detects the full length OPN and the 32kD fragment. It does not recognise the 40kD fragment.

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