

**Anti-OPN Antibody**  
Catalog # ABO12758**Specification**

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**Anti-OPN Antibody - Product Information**

Application	<b>WB</b>
Primary Accession	<a href="#">P10451</a>
Host	<b>Rabbit</b>
Reactivity	<b>Human, Mouse, Rat</b>
Clonality	<b>Polyclonal</b>
Format	<b>Lyophilized</b>

**Description**

Rabbit IgG polyclonal antibody for Osteopontin(SPP1) detection. Tested with WB, ELISA in Human;Mouse;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-OPN Antibody - Additional Information**

**Gene ID** 6696

**Other Names**

Osteopontin, Bone sialoprotein 1, Nephropontin, Secreted phosphoprotein 1, SPP-1, Urinary stone protein, Uropontin, SPP1, BNSP, OPN

**Calculated MW**

35423 MW KDa

**Application Details**

Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat, -<br>ELISA , 0.1-0.5 µg/ml, Human<br>

**Subcellular Localization**

Secreted.

**Tissue Specificity**

Bone. Found in plasma.

**Protein Name**

Osteopontin

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg NaN<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the C-terminus of human Osteopontin (281-314aa HEDMLVVDPKSKEEDKHLKFRISHELDSASSEVN), different from the related mouse sequence by eight amino acids, and from the related rat sequence by seven amino acids.

### Purification

Immunogen affinity purified.

### Cross Reactivity

No cross reactivity with other proteins

### Storage

**At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.**

### Sequence Similarities

Belongs to the osteopontin family.

## Anti-OPN Antibody - Protein Information

**Name** SPP1

**Synonyms** BNSP, OPN

### Function

Major non-collagenous bone protein that binds tightly to hydroxyapatite. Appears to form an integral part of the mineralized matrix. Probably important to cell-matrix interaction.

### Cellular Location

Secreted

### Tissue Location

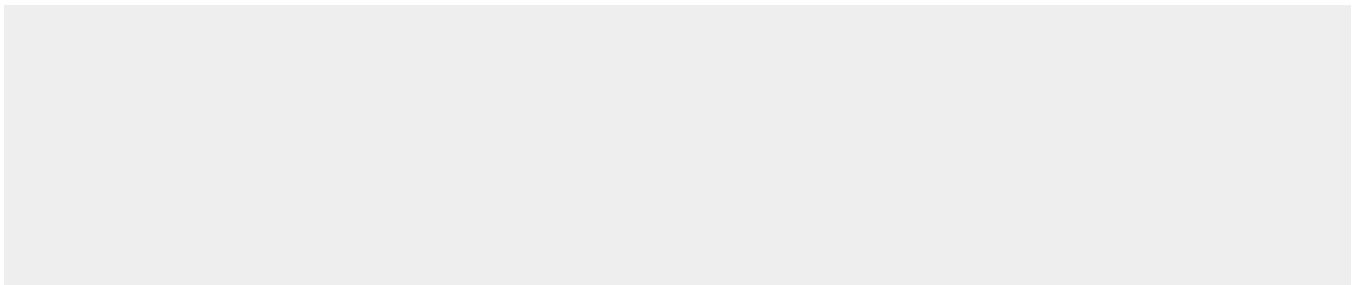
Detected in cerebrospinal fluid and urine (at protein level) (PubMed:25326458, PubMed:36213313, PubMed:37453717) Bone. Found in plasma.

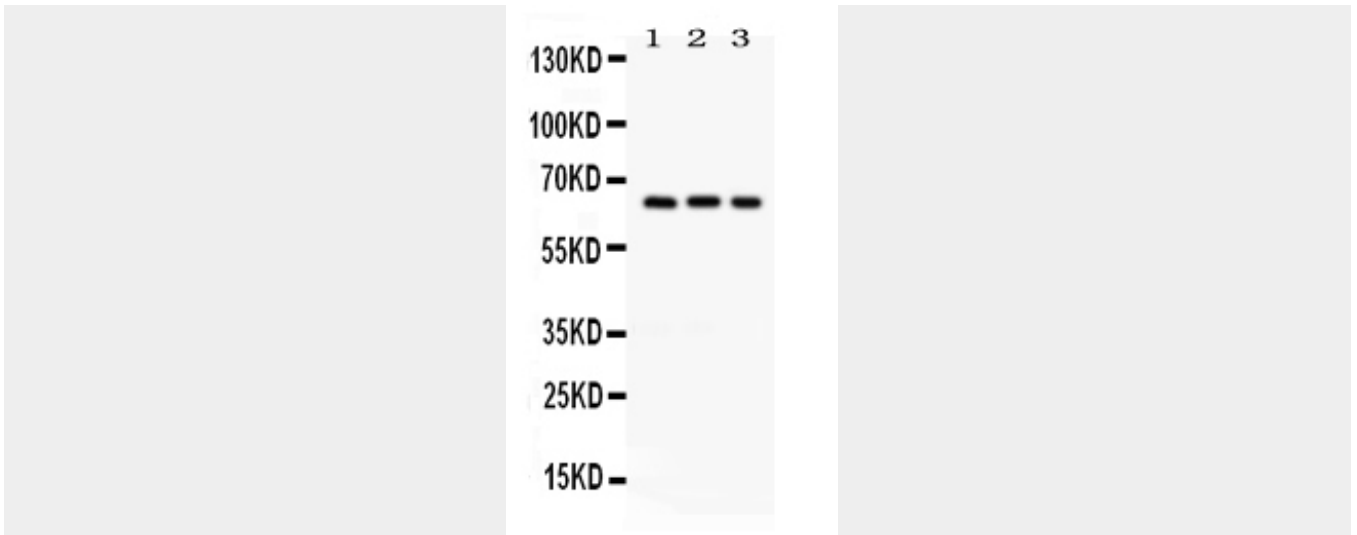
## Anti-OPN Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Anti-OPN Antibody - Images





Anti- Osteopontin antibody, ABO12758, Western blotting All lanes: Anti Osteopontin (ABO12758) at 0.5ug/ml Lane 1: Mouse Pancreas Tissue Lysate at 50ug Lane 2: JURKAT Whole Cell Lysate at 40ug Lane 3: HEPG2 Whole Cell Lysate at 40ug Predicted bind size: 66KD Observed bind size: 66KD

#### **Anti-OPN Antibody - Background**

Osteopontin (OPN), also known as secreted phosphoprotein 1 (SPP1), is a protein that in humans is encoded by the SPP1 gene (secreted phosphoprotein 1). The protein encoded by this gene is involved in the attachment of osteoclasts to the mineralized bone matrix. And the encoded protein is secreted and binds hydroxyapatite with high affinity. The osteoclast vitronectin receptor is found in the cell membrane and may be involved in the binding to this protein. Also, this protein is a cytokine that upregulates expression of interferon-gamma and interleukin-12. Several transcript variants encoding different isoforms have been found for this gene.