

**Anti-OPN Antibody**  
Catalog # ABO10753**Specification**

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**Anti-OPN Antibody - Product Information**

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

**Description**

Rabbit IgG polyclonal antibody for Osteopontin(SPP1) detection. Tested with WB, IHC-P in Human.

**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**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat<br>Western blot, 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 Thimerosal, 0.05mg NaN<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the N-terminus of human Osteopontin(28-47aa EEKQLYNKYPDAVATWLNPD), different from the related mouse sequence by six 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

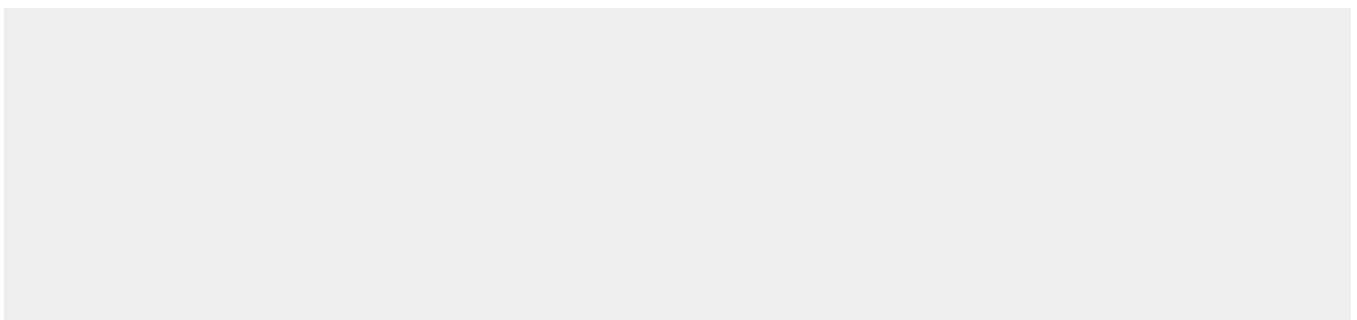
Detected in cerebrospinal fluid and urine (at protein level) (PubMed:25326458, PubMed:36213313, PubMed:37453717) Bone. Found in plasma.

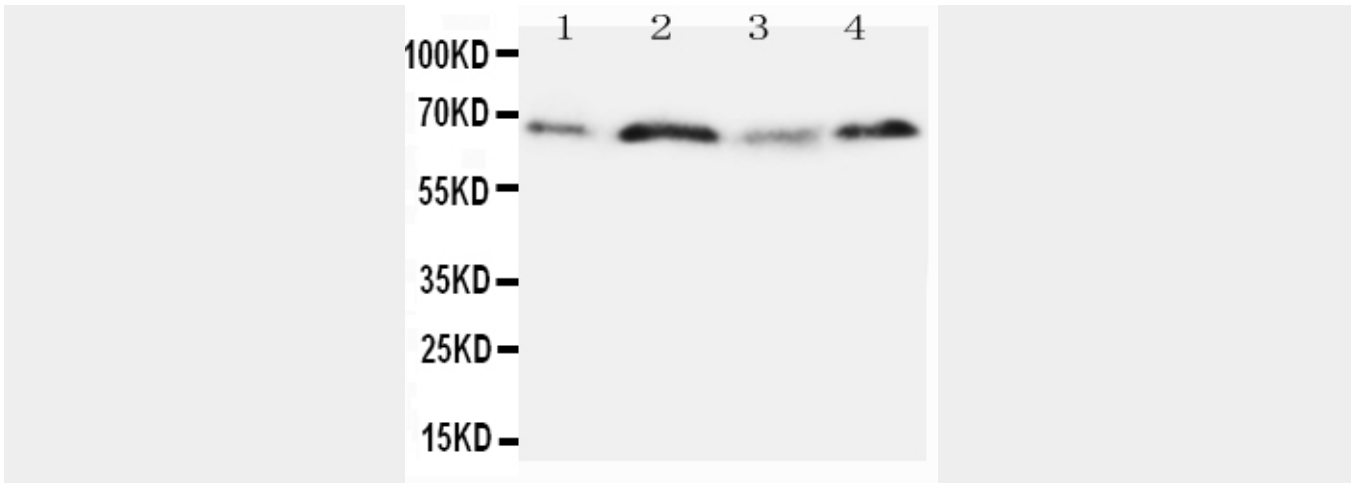
### Anti-OPN Antibody - Protocols

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

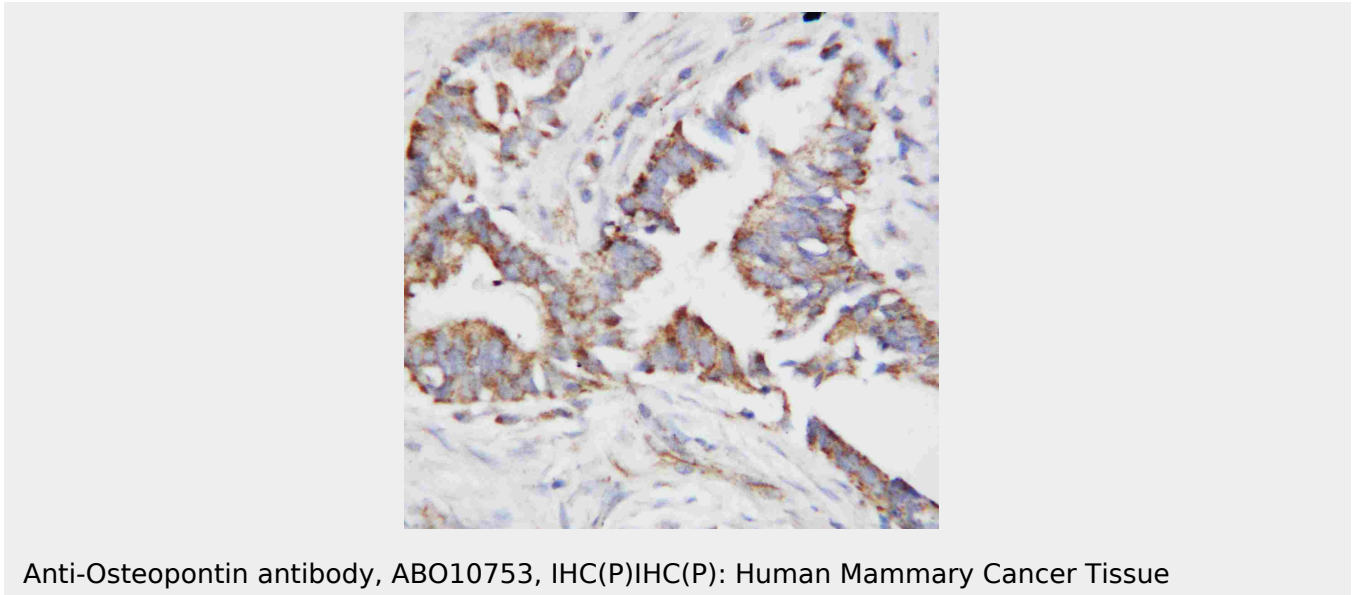
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Anti-OPN Antibody - Images





Anti-Osteopontin antibody, ABO10753, Western blotting Lane 1: MM231 Cell Lysate Lane 2: HELA Cell Lysate Lane 3: JURKAT Cell Lysate Lane 4: COLO320 Cell Lysate



Anti-Osteopontin antibody, ABO10753, IHC(P) IHC(P): Human Mammary Cancer Tissue

**Anti-OPN Antibody - Background**

Osteopontin(OPN) also called urinary stone protein, secreted phosphoprotein 1(SPP1), bone sialoprotein, and early T lymphocyte activation 1(ETA1). Osteopontin is a phosphorylated glycoprotein secreted to the mineralizing extracellular matrix by osteoblasts during bone development. Osteopontin is presumably involved in stone formation as stone matrix. The deduced protein sequence reveals a 317-amino acid protein(34,982 Da) containing a 16-amino acid hydrophobic signal sequence and a 33,352-Da protein destined to undergo extensive post-translational modifications before being secreted from the cell. The gene is located on human chromosome 4. The standard product used in this kit is recombinant human OPN, consisting of 17-314 amino acid sequence with the molecular mass of 32.9KDa. As a result of glycosylation, the molecular mass is 60-65KDa.