10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

SPP1 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1790a

Specification

SPP1 Antibody - Product Information

Application	**E, WB, IHC**
Primary Accession	P10451
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**35.4kDa KDa**

Description
The protein encoded by this gene is involved in the attachment of osteoclasts to the mineralized bone matrix. 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. This protein is also a cytokine that upregulates expression of interferon-gamma and interleukin-12. Several transcript variants encoding different isoforms have been found for this gene.

Immunogen
Purified recombinant fragment of human SPP1 (AA: 167-314) expressed in E. Coli.

Formulation
Purified antibody in PBS with 0.05% sodium azide

SPP1 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

Dilution
E~~1/10000
WB~~1/500 - 1/2000
IHC~~1/200 - 1/1000

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
SPP1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

SPP1 Antibody - Protein Information

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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.

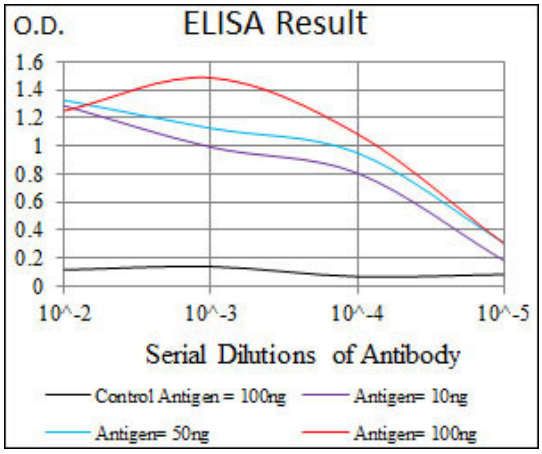
Cellular Location
Secreted

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

SPP1 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 Cytomety
- Cell Culture



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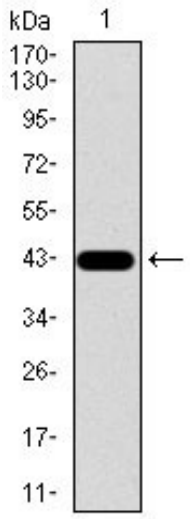


Figure 1: Western blot analysis using SPP1 mAb against human SPP1 recombinant protein. (Expected MW is 42.6 kDa)

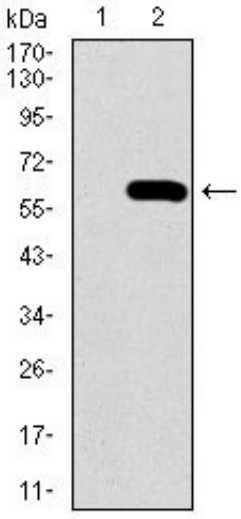


Figure 2: Western blot analysis using SPP1 mAb against HEK293 (1) and SPP1 (AA: 167-314)-hIgGFc transfected HEK293 (2) cell lysate.

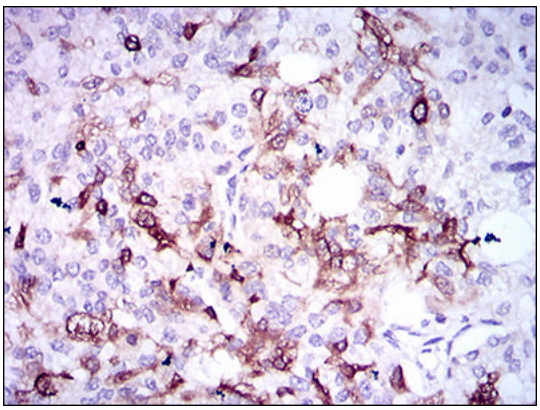


Figure 3: Immunohistochemical analysis of paraffin-embedded prostate cancer tissues using SPP1 mouse mAb with DAB staining.

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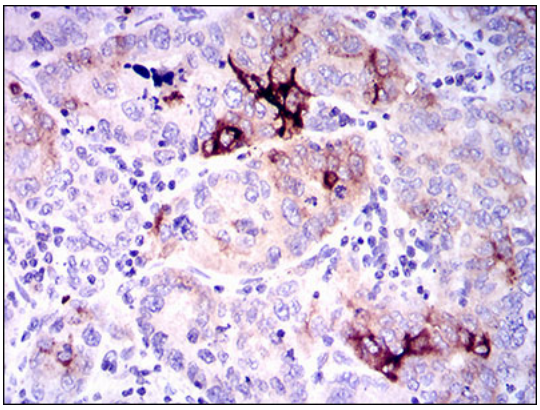


Figure 4: Immunohistochemical analysis of paraffin-embedded endometrial cancer tissues using SPP1 mouse mAb with DAB staining.

SPP1 Antibody - Background

This protein encoded by this gene belongs to the WD repeat-containing family of proteins, which function in the formation of protein-protein complexes in a variety of biological pathways. This family member appears to function in the determination of mean platelet volume (MPV), and polymorphisms in this gene have been associated with variance in MPV. Alternative splicing of this gene results in multiple transcript variants. ;

SPP1 Antibody - References

1.Blood. 2012 May 31;119(22):5215-20. 2.J Cancer Res Ther. 2011 Apr-Jun;7(2):138-42.