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

Product Information

Application	WB, IHC, ICC, E
Primary Accession	P10451
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	7C5H12
Isotype	IgG1
Calculated MW	35423
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

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	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 ICC~~N/A E~~1/10000
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.

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.

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. ;

References

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

Images

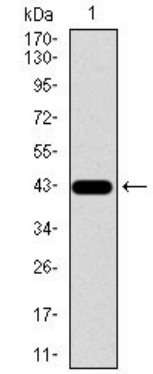

Figure 1: Western blot analysis using SPP1 mAb against human SPP1 recombinant protein. (Expected MW is 42.6 kDa)

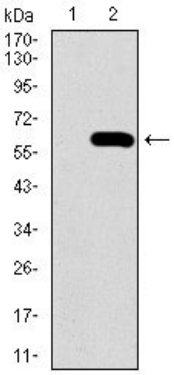

Figure 2: Western blot analysis using SPP1 mAb against HEK293 (1) and SPP1 (AA: 167-314)-hIgGFc transfected HEK293 (2) cell lysate.

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

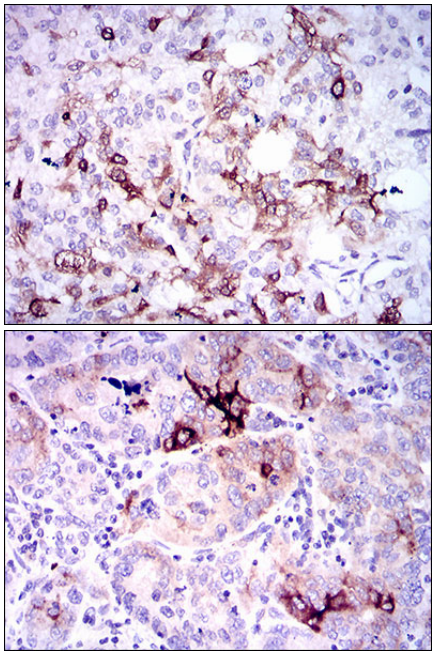

Figure 4: Immunohistochemical analysis of paraffin-embedded endometrial cancer tissues using SPP1 mouse mAb with DAB staining.