

Anti-Osteopontin Antibody (4H276)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	4H276
Purification:	Protein A

Applications

Verified Activity:	<ol style="list-style-type: none">1. Flow cytometric analysis of purified anti-human Spp1 on U937 cells. U937 cells were treated according to manufacturer's manual (BD Pharmingen™ Cat. No. 554714), and stained with Purified Rabbit anti-Spp1 (Bold line hisgram), To demonstrate specificity of staining the binding of anti-human Spp1 was blocked by the preincubation of the purified antibody with molar excess of recombinant human Spp1 (5 µg) for 1 hour (dashed line hisgram), then stained with a FITC-conjugated second step antibody.2. Immunochemical staining of human SPP1 in human kidney with rabbit monoclonal antibody (1:2000, formalin-fixed paraffin embedded sections).3. Immunochemical staining of human SPP1 in human hepatoma with rabbit monoclonal antibody (1:2000, formalin-fixed paraffin embedded sections).
Application:	ELISA,FCM,IHC-P
Recommended	ELISA: 1:5000-1:10000; IHC-P: 1:1000-1:4000; FCM: 1:25-1:100

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	Recombinant Protein: Human Osteopontin / SPP1 / ETA-1 protein (TMPY-01288)
Antigen Species:	Human
Synonyms:	BSPI;ETA-1;BNSP;secreted phosphoprotein 1;OPN

Research Background

Osteopontin, also known as Secreted phosphoprotein 1, Bone sialoprotein 1, BSP-1, OPN, and SPP1, is a member of the osteopontin family and a SIBLING glycoprotein. Osteopontin has been classified as T-helper 1 cytokine and thus believed to exacerbate inflammation in several chronic inflammatory diseases, including atherosclerosis. Besides proinflammatory functions, physiologically Osteopontin is a potent inhibitor of mineralization, it prevents ectopic calcium deposits and is a potent inducible inhibitor of vascular calcification. Osteopontin is expressed and secreted by various cells, and has a role in cell adhesion, chemotaxis, prevention of apoptosis, invasion, migration and anchorage-independent growth of tumor cells. Osteopontin recruitment functions of inflammatory cells are thought to be mediated through its adhesive domains, especially the arginine-glycine-aspartate (RGD) sequence that interacts with several integrin heterodimers. Osteopontin has emerged as a potential biomarker and mediator in

cardiovascular disease. In the context of atherosclerosis, OPN is generally regarded as a proinflammatory and proatherogenic molecule. However, the role of OPN in vascular calcification (VC), which is closely related to chronic and active inflammation, is that of a negative regulator because it is an inhibitor of calcification and an active inducer of decalcification. Extensive research has demonstrated the pivotal participation of Osteopontin in the regulation of cell signaling which controls neoplastic and malignant transformation. The elevated expression of Osteopontin has been observed in a variety of cancers. It has been linked with tumor metastasis and signifies a poor prognosis for the patient.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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