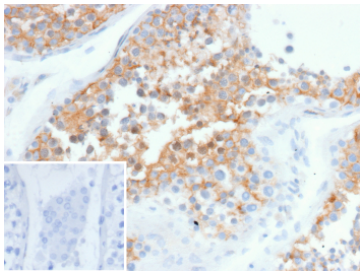
BM-40 Antibody / SPARC [clone rOSTN/9835] (V6001)

Catalog No.	Formulation	Size
V6001-100UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V6001-20UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug
V6001SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Recombinant MOUSE MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rOSTN/9835
UniProt	P09486
Localization	Basement membrane, Extracellular matrix, Extracellular space, Secreted
Applications	Immunohistochemistry (FFPE): 1-2ug/ml Western Blot: 2-4ug/ml
Limitations	This BM-40/SPARC antibody is available for research use only.



Immunohistochemistry analysis of BM-40 / SPARC antibody in human testis tissue (clone rOSTN/9835). FFPE human testis sections show HRP-DAB brown cytoplasmic and extracellular staining within seminiferous tubules, with positive signal observed in germ cell populations and surrounding stromal compartments. The staining pattern highlights matrix-associated localization consistent with Secreted protein acidic and rich in cysteine expression. The inset shows PBS used in place of primary antibody, serving as a secondary antibody negative control with absence of specific brown staining. Heat induced epitope retrieval was performed in 10 mM Tris with 1 mM EDTA, pH 9.0, by heating tissue sections at 95oC for 45 minutes followed by cooling at room temperature for 20 minutes prior to antibody incubation.

Description

BM-40 antibody, also known as SPARC antibody, recognizes Secreted protein acidic and rich in cysteine, a secreted matricellular glycoprotein that regulates extracellular matrix organization and cell-matrix communication. The human

SPARC gene is located on chromosome 5q33.1 and encodes a protein widely referred to in the literature as Osteonectin and Basement membrane protein 40. SPARC is secreted into the extracellular space and localizes to basement membranes and stromal compartments, where it modulates interactions between cells and the surrounding matrix rather than functioning as a structural scaffold.

Secreted protein acidic and rich in cysteine plays a key role in collagen binding, matrix assembly, and regulation of cell adhesion and migration. It is highly expressed in connective tissues, bone, activated fibroblasts, and endothelial cells. In skeletal biology, Osteonectin is abundant in osteoblasts and bone matrix, contributing to collagen fibrillogenesis and mineralization processes. A BM-40 antibody is frequently used in studies investigating extracellular matrix remodeling, tumor microenvironment dynamics, angiogenesis, and fibrotic disease due to SPARC's involvement in stromal activation and matrix deposition.

Structurally, SPARC contains an acidic N-terminal domain, a follistatin-like domain, and a C-terminal extracellular calcium-binding domain with EF-hand motifs. These domains support calcium binding and mediate interactions with collagens, albumin, and growth factors. Through these molecular interactions, Secreted protein acidic and rich in cysteine influences signaling pathways such as TGF-beta signaling and integrin-mediated adhesion cascades, impacting tissue remodeling and vascular responses.

In cancer research, elevated SPARC expression is commonly observed in desmoplastic stroma associated with breast, pancreatic, colorectal, and ovarian carcinomas. Expression is often detected in tumor-associated fibroblasts and matrix-rich regions, where SPARC contributes to extracellular matrix reorganization. Depending on tumor context, SPARC may be linked to invasion, stromal remodeling, or modulation of growth factor signaling. Beyond oncology, SPARC is upregulated during wound healing and in fibrotic disorders affecting liver, lung, and kidney, reflecting its broader role in tissue repair and matrix turnover. During embryogenesis, SPARC expression is detected in tissues undergoing active morphogenesis and vascular development.

Clone rOSTN/9835 is a recombinant monoclonal antibody developed to recognize SPARC in research applications. A BM-40 antibody supports investigation of extracellular matrix biology, connective tissue remodeling, and stromal cell function. This antibody targets SPARC in research settings and is suitable for studies focused on fibrosis, angiogenesis, skeletal biology, and tumor-associated stromal responses.

Application Notes

Optimal dilution of the BM-40/SPARC antibody should be determined by the researcher.

Immunogen

A recombinant fragment corresponding to the C-terminus of human SPARC protein (exact sequence is proprietary) was used as the immunogen for the BM-40/SPARC antibody.

Storage

BM-40/SPARC antibody with sodium azide store at 2 to 8oC; antibody without sodium azide store at -20 to -80oC.

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