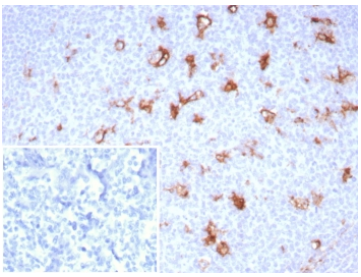
SPARC Antibody / Osteonectin [clone OSTN/8528R] (V5109)

Catalog No.	Formulation	Size
V5109-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5109-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5109SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

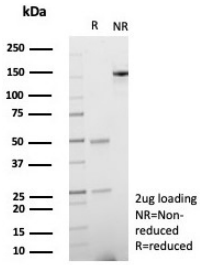
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	OSTN/8528R
Purity	Protein A/G affinity
UniProt	P09486
Localization	Secreted
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This SPARC antibody is available for research use only.



Immunohistochemistry analysis of SPARC antibody in human tonsil tissue (clone OSTN/8528R). FFPE human tonsil sections demonstrate HRP-DAB brown cytoplasmic and extracellular stromal staining in scattered stromal cells and matrix-rich interfollicular areas, consistent with Secreted protein acidic and rich in cysteine localization in the extracellular matrix. Lymphoid cells within follicles are largely negative, providing clear contrast with the positive stromal compartment. 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 by boiling tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 20 minutes followed by cooling prior to antibody incubation.



SDS-PAGE analysis of purified, BSA-free SPARC antibody (clone OSTN/8528R) as confirmation of integrity and purity.

Description

SPARC antibody, also known as Osteonectin antibody, recognizes Secreted protein acidic and rich in cysteine, a matricellular glycoprotein that regulates extracellular matrix organization and cell-matrix communication. The SPARC gene is located on human chromosome 5q33.1 and encodes a secreted protein that localizes to the extracellular space and basement membranes. Secreted protein acidic and rich in cysteine is a member of the SPARC family of matricellular proteins, which modulate cellular interactions with the surrounding matrix rather than serving as structural scaffolds.

Secreted protein acidic and rich in cysteine is highly expressed in connective tissues, bone, endothelium, and remodeling stroma. It is particularly abundant in osteoblasts and fibroblasts, where it regulates collagen deposition and fibrillogenesis. SPARC antibody is frequently utilized in studies examining stromal biology, tumor microenvironment remodeling, and fibrotic disease because SPARC influences cell adhesion, migration, and growth factor responsiveness. The protein binds collagens and interacts with albumin and other extracellular components, shaping matrix architecture and tissue stiffness.

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 facilitate interactions with matrix proteins and signaling molecules. Through these interactions, Secreted protein acidic and rich in cysteine participates in pathways such as TGF-beta signaling and integrin-mediated adhesion cascades, influencing angiogenesis, wound repair, and extracellular matrix turnover.

In cancer biology, SPARC expression is often associated with desmoplastic reactions and activated fibroblasts within the tumor stroma. Elevated levels have been reported in breast, pancreatic, colorectal, and ovarian cancers, where SPARC may contribute to matrix remodeling and tumor progression in a context-dependent manner. Beyond oncology, SPARC is upregulated in fibrotic disorders affecting liver, lung, and kidney, and it plays a recognized role in tissue repair following injury. During embryogenesis, expression is detected in tissues undergoing active morphogenesis and vascular development, highlighting its importance in developmental matrix remodeling.

Clone OSTN/8528R is a recombinant monoclonal antibody designed to recognize SPARC for research applications. A SPARC antibody supports investigation of extracellular matrix dynamics, stromal activation, and connective tissue biology. 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 SPARC antibody should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 1-200) from the human protein was used as the immunogen for the SPARC antibody.

Storage

Aliquot the SPARC antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.