

Anti-SPARC Picoband Antibody

Catalog # ABO10119

Product Information

Application	WB
Primary Accession	P09486
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for SPARC(SPARC) detection. Tested with WB in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	6678
Other Names	SPARC, Basement-membrane protein 40, BM-40, Osteonectin, ON, Secreted protein acidic and rich in cysteine, SPARC, ON
Calculated MW	34632
Application Details	Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat
Subcellular Localization	Secreted, extracellular space, extracellular matrix, basement membrane . In or around the basement membrane.
Source	Eukaryota
Protein Name	SPARC
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Immunogen	E.coli-derived human SPARC recombinant protein (Position: E107-I303). Human SPARC shares 97% amino acid (aa) sequence identity with both mouse and rat SPARC.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

Protein Information

Name	SPARC
Synonyms	ON
Function	Appears to regulate cell growth through interactions with the extracellular matrix and cytokines. Binds calcium and copper, several types of collagen, albumin, thrombospondin, PDGF and cell membranes. There are two calcium binding sites; an acidic domain that binds 5 to 8 Ca(2+) with a low affinity and an EF-hand loop that binds a Ca(2+) ion with a high affinity.
Cellular Location	Secreted, extracellular space, extracellular matrix, basement membrane. Note=In or around the basement membrane

Background

SPARC, secreted protein acidic and rich in cysteine, also known as Osteonectin is a protein that in humans is encoded by the SPARC gene. The human SPARC gene is 26.5 kb long, and contains 10 exons and 9 introns and is located on chromosome 5q31-q33. SPARC is an acidic, cysteine-rich glycoprotein consisting of a single polypeptide chain that can be broken into 4 domains: 1) an Ca⁺⁺ binding domains near the glutamic acidic-rich region at the amino terminus (domain I), 2) a cysteine- rich (domain II), 3) a hydrophilic region (domain III) and 4) an EF hand motif at the carboxy terminus region (domain IV). Furthermore, SPARC is a glycoprotein in the bone that binds sodium. It is secreted by osteoblasts during bone formation, initiating mineralization and promoting mineral crystal formation. SPARC also shows affinity for collagen in addition to bone mineral calcium. A correlation between SPARC over expression and ampullary cancers and chronic pancreatitis has been found.

Images

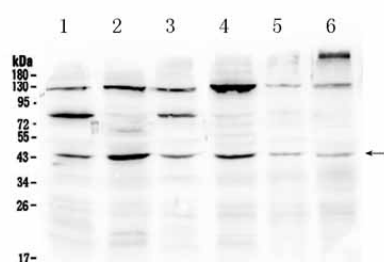


Figure 1. Western blot analysis of SPARC using anti-SPARC antibody (ABO10119). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat brain tissue lysates, Lane 2: rat testis tissue lysates, Lane 3: mouse brain tissue lysates, Lane 4: mouse testis tissue lysates, Lane 5: U2Os whole Cell lysates, Lane 6: HEPG2 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-SPARC antigen affinity purified polyclonal antibody (Catalog # ABO10119) at 0.5 µg/mL overnight at 4 °C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for SPARC at approximately 43KD. The expected band size for SPARC is at 35 KD.

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