10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ASPN Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP6604c

Specification

ASPN Antibody (Center) Blocking Peptide - Product Information

Primary Accession Q9BXN1

ASPN Antibody (Center) Blocking Peptide - Additional Information

Gene ID 54829

Other Names
Asporin, Periodontal ligament-associated protein 1, PLAP-1, ASPN, PLAP1, SLRR1C

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP6604c was selected from the Center region of human ASPN. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ASPN Antibody (Center) Blocking Peptide - Protein Information

Name ASPN

Synonyms PLAP1, SLRR1C

Function
Negatively regulates periodontal ligament (PDL) differentiation and mineralization to ensure that the PDL is not ossified and to maintain homeostasis of the tooth-supporting system. Inhibits BMP2-induced cytodifferentiation of PDL cells by preventing its binding to BMPR1B/BMP type-1B receptor, resulting in inhibition of BMP-dependent activation of SMAD proteins (By similarity). Critical regulator of TGF-beta in articular cartilage and plays an essential role in cartilage homeostasis and osteoarthritis (OA) pathogenesis. Negatively regulates chondrogenesis in the articular cartilage by blocking the TGF-beta/receptor interaction on the cell surface and inhibiting the canonical TGF-beta/Smad signal. Binds calcium and plays a role in osteoblast-driven collagen biomineralization activity.

Cellular Location
Secreted, extracellular space, extracellular matrix

Tissue Location
Higher levels in osteoarthritic articular cartilage, aorta, uterus. Moderate expression in small intestine, heart, liver, bladder, ovary, stomach, and in the adrenal, thyroid, and mammary glands. Low expression in trachea, bone marrow, and lung Colocalizes with TGFB1 in chondrocytes within osteoarthritic (OA) lesions of articular cartilage.

ASPN Antibody (Center) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

ASPN Antibody (Center) Blocking Peptide - Images

ASPN Antibody (Center) Blocking Peptide - Background

ASPN belongs to a family of leucine-rich repeat (LRR) proteins associated with the cartilage matrix. The name asporin reflects the unique aspartate-rich N terminus and the overall similarity to decorin.

ASPN Antibody (Center) Blocking Peptide - References

Gruber,H.E., Arthritis Res. Ther. 11 (2), R47 (2009)Ikegawa,S., Curr. Med. Chem. 15 (7), 724-728 (2008)