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ASPN Antibody (Center)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6604C

Specification

ASPN Antibody (Center) - Product Information

Application	**IF, WB, IHC-P,E**
Primary Accession	Q9BXN1
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**43417**
Antigen Region	**242-269**

ASPN Antibody (Center) - Additional Information

Gene ID 54829

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

Target/Specificity
This ASPN antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 242-269 amino acids from the Central region of human ASPN.

Dilution
IF~~1:10~50
WB~~1:1000
IHC-P~~1:50~100
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
ASPN Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

ASPN Antibody (Center) - 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

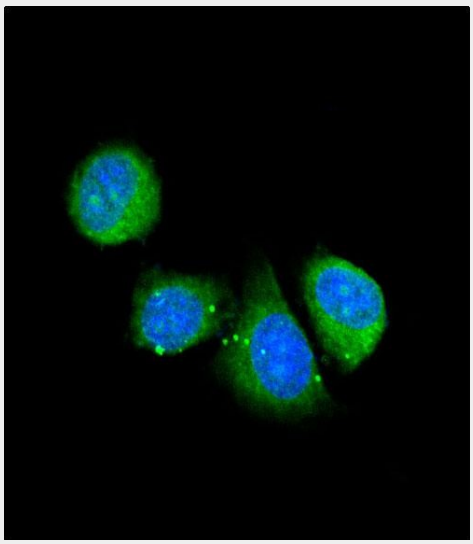
Tissue Location
Higher levels in osteoarthritic articular cartilage, aorta, uterus. Moderate expression in small intestine, heart, liver, bladder, ovary, stomach, and in the adrenal, thyroid, and mammary glands. Low expression in trachea, bone marrow, and lung Colocalizes with TGFB1 in chondrocytes within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

ASPN Antibody (Center) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ASPN Antibody (Center) - Images



Confocal immunofluorescent analysis of ASPN Antibody (Center) (Cat. #AP6604c) with 293 cell

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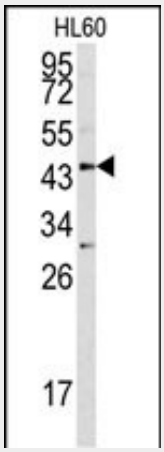
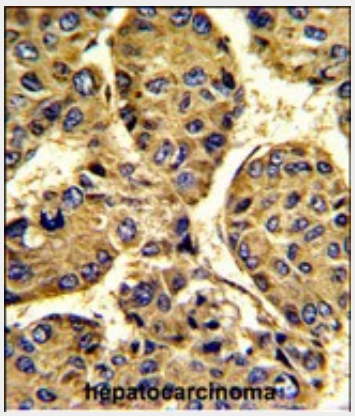
followed by Alexa Fluor® 488-conjugated goat anti-rabbit IgG (green). DAPI was used to stain the cell nuclear (blue).



Western blot analysis of ASPN antibody (Center) (Cat. #AP6604c) in HL60 cell line lysates(35ug/lane). ASPN (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human hepatocarcinoma with ASPN Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

ASPN Antibody (Center) - 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) - References

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