

**Goat Anti-Asporin / ASPN Antibody**  
**Peptide-affinity purified goat antibody**  
**Catalog # AF1120a****Specification**

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**Goat Anti-Asporin / ASPN Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">Q9BXN1</a>
Other Accession	<a href="#">NP_060150</a> , <a href="#">54829</a>
Reactivity	Human, Mouse
Predicted	Rat
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	43417

**Goat Anti-Asporin / ASPN Antibody - Additional Information****Gene ID** 54829**Other Names**

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

**Format**

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Goat Anti-Asporin / ASPN Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Goat Anti-Asporin / ASPN Antibody - 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 BMPRII/BMP type-II 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.

**Goat Anti-Asporin / ASPN Antibody - Protocols**

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Goat Anti-Asporin / ASPN Antibody - Images**

AF1120a (0.5 µg/ml) staining of Human Muscle lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

**Goat Anti-Asporin / ASPN Antibody - Background**

This gene encodes a cartilage extracellular protein that is member of the small leucine-rich proteoglycan family. The encoded protein may regulate chondrogenesis by inhibiting transforming

growth factor-beta 1-induced gene expression in cartilage. This protein also binds collagen and calcium and may induce collagen mineralization. Polymorphisms in the aspartic acid repeat region of this gene are associated with a susceptibility to osteoarthritis. Alternate splicing results in multiple transcript variants.

#### **Goat Anti-Asporin / ASPN Antibody - References**

Association of an asporin repeat polymorphism with ankylosing spondylitis in Han Chinese population: a case-control study. Liu D, et al. Clin Invest Med, 2010 Feb 1. PMID 20144272.  
Asporin and transforming growth factor-beta gene expression in osteoblasts from subchondral bone and osteophytes in osteoarthritis. Sakao K, et al. J Orthop Sci, 2009 Nov. PMID 19997821.  
Asporin competes with decorin for collagen binding, binds calcium and promotes osteoblast collagen mineralization. Kalamajski S, et al. Biochem J, 2009 Sep 14. PMID 19589127.  
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Association of the CALM1 core promoter polymorphism with knee osteoarthritis in patients of Greek origin. Poulou M, et al. Genet Test, 2008 Jun. PMID 18452398.