

## Rabbit Asporin Polyclonal Antibody | anti-ASPEN antibody

Asporin Antibody

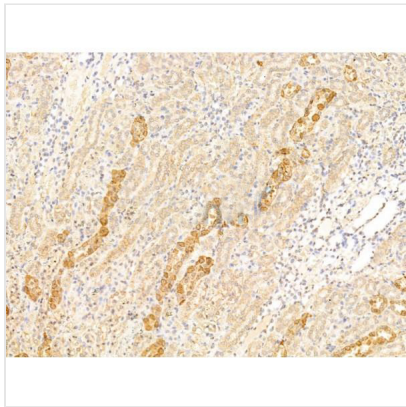
| CATALOG # | HOST   | REACTIVITY                                                                                                                         | APPLICATIONS |
|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------|--------------|
| AAA329141 | Rabbit | Human, Mouse, Rat<br>Predicted Reactivity: Pig(100%), Bovine(100%), Horse(100%), Sheep(100%), Rabbit(88%), Dog(100%), Xenopus(86%) | ELISA        |

### PRODUCT SYNONYMS

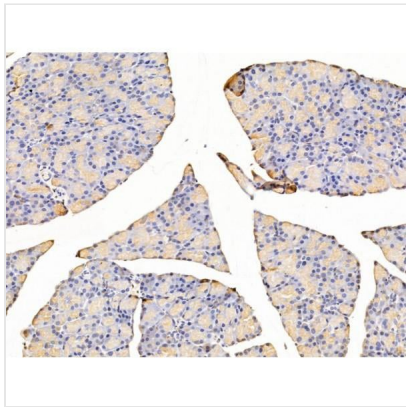
Asporin; Polyclonal Antibody; Asporin Antibody; ASPEN; ASPEN protein; ASPEN\_HUMAN; Asporin (LRR class 1); Asporin proteoglycan; FLJ20129; LRR class 1; Periodontal ligament associated protein 1; Periodontal ligament-associated protein 1; PLAP 1; PLAP-1; PLAP1; SLRR 1C; SLRR1C; Small leucine rich protein 1C; anti-ASPEN antibody

### PRODUCT SPECIFICATIONS

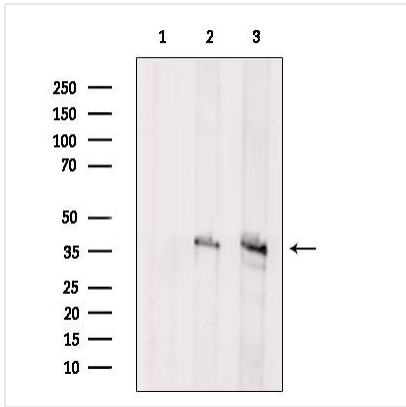
|                                                 |                                                                                                                                    |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Host                                            | Rabbit                                                                                                                             |
| Reactivity                                      | Human, Mouse, Rat<br>Predicted Reactivity: Pig(100%), Bovine(100%), Horse(100%), Sheep(100%), Rabbit(88%), Dog(100%), Xenopus(86%) |
| Clonality                                       | Polyclonal                                                                                                                         |
| Isotype                                         | IgG                                                                                                                                |
| Specificity                                     | Asporin Antibody detects endogenous levels of total Asporin.                                                                       |
| Purity/Purification                             | The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin (Thermo Fisher Scientific).           |
| Form/Format                                     | Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol                            |
| Concentration                                   | 1mg/ml (varies by lot)                                                                                                             |
| Sequence Length                                 | 242                                                                                                                                |
| Applicable Applications for anti-ASPEN antibody | ELISA                                                                                                                              |
| Immunogen                                       | A synthesized peptide derived from human Asporin, corresponding to a region within C-terminal amino acids.                         |
| Fragment                                        | Fab fragment                                                                                                                       |
| Preparation and Storage                         | Store at -20 degree C. Stable for 12 months from date of receipt.                                                                  |



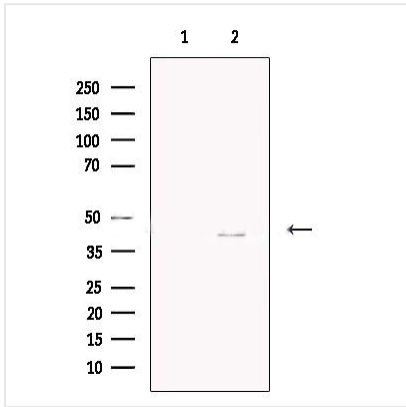
**IHC (Immunohistochemistry)**  
AAA329141 at 1/100 staining Rat kidney tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4Â°C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



**IHC (Immunohistochemisry)**  
AAA329141 at 1/100 staining Rat stomach tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4Â°C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



**WB (Western Blot)**  
Western blot analysis of extracts from various samples, using Asporin Antibody. Lane 1: Hela cells, treated with blocking peptide; Lane 2: Hela cells; Lane 3: B16F10 cells. Observed bands: 37 kDa.



**WB (Western Blot)**  
Western blot analysis of extracts from HepG2 cells, using Asporin Antibody. The lane on the left was treated with blocking peptide.

ADDITIONAL INFORMATION

|                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for anti-ASP <sub>N</sub> antibody | <p>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-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.</p> <p>Post Translational Modifications: There is no serine/glycine dipeptide sequence expected for the attachment of O-linked glycosaminoglycans and this is probably not a proteoglycan. The O-linked polysaccharide on 54-Ser is probably the mucin type linked to GalNAc. The N-linked glycan at Asn-282 is composed of variable structures of GlcNAc, mannose, fucose, HexNAc and hexose.</p> <p>Subcellular Location: Secreted&gt;Extracellular space&gt;Extracellular matrix.</p> <p>Tissue Specificity: 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.</p> <p>Subunit Structure: Interacts with TGFB1, TGFB2 and TGFB3. DCN, BGN, and FMOD inhibit binding to TGFB1. Interacts with BMP2. Interacts in vitro with type II collagen (By similarity). Interacts with type I collagen. DCN can inhibit collagen binding.</p> <p>Similarity: The LRR 5 repeat can inhibit BMP2-induced cytodifferentiation and may be involved in the interaction with BMP2 (By similarity). The repeats LRR 10, LRR 11 and LRR 12 are involved in binding type I collagen. The poly-Asp region is involved in binding calcium. Belongs to the small leucine-rich proteoglycan (SLRP) family. SLRP class I subfamily.</p> |
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NCBI AND UNIPROT INFORMATION

|                                  |                                                                                                    |
|----------------------------------|----------------------------------------------------------------------------------------------------|
| NCBI GI #                        | 301069324                                                                                          |
| NCBI GeneID                      | 54829                                                                                              |
| NCBI Accession #                 | NP_001180264.1                                                                                     |
| NCBI GenBank Nucleotide #        | NP_001180264.1                                                                                     |
| UniProt Accession #              | Q9BXN1                                                                                             |
| Molecular Weight                 | Observed Molecular Weight: (Observed)43kD, 37kD.<br>Predicted Molecular Weight: (Calculated)43kDa. |
| NCBI Official Full Name          | asporin isoform 2                                                                                  |
| NCBI Official Synonym Full Names | asporin                                                                                            |
| NCBI Official Symbol             | ASP <sub>N</sub>                                                                                   |
| NCBI Official Synonym Symbols    | OS3; PLAP1; PLAP-1; SLRR1C                                                                         |
| NCBI Protein Information         | asporin                                                                                            |
| UniProt Protein Name             | Asporin                                                                                            |
| UniProt Gene Name                | ASP <sub>N</sub>                                                                                   |
| UniProt Synonym Gene Names       | PLAP1; SLRR1C; PLAP-1                                                                              |
| UniProt Entry Name               | ASP <sub>N</sub> _HUMAN                                                                            |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/asporin-antibody-elisa/329141>