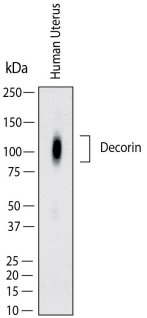
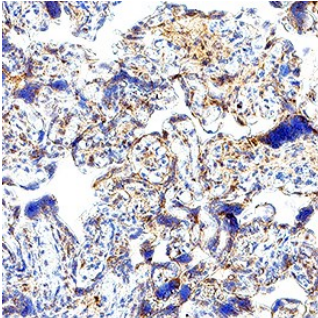


DESCRIPTION	
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects Human Decorin by Direct ELISA
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 1072716
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>Spodoptera frugiperda</i> , Sf 21 (baculovirus)-derived human Decorin Gly17-Lys359 Accession # P07585
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS		
Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.		
	Recommended Concentration	Sample
Western Blot	1 µg/mL	Human uterus
Immunohistochemistry	3-25 µg/mL	Immersion fixed paraffin-embedded sections of human placenta

DATA	
<p><b>N/A</b></p>  <p><b>Detection of Human Decorin by Western Blot.</b> Western Blot shows lysates of human uterus. PVDF membrane was probed with 1 µg/ml of Mouse Anti-Human Decorin Monoclonal Antibody (Catalog # MAB11528) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Decorin at approximately 80-100 kDa (as indicated). This experiment was conducted under reducing conditions and using Western Blot Buffer Group 1.</p>	<p><b>Immunohistochemistry</b></p>  <p><b>Detection of Decorin in Human Placenta.</b> Decorin was detected in immersion fixed paraffin-embedded sections of human placenta using Mouse Anti-Human Decorin Monoclonal Antibody (Catalog # MAB11528) at 5 µg/ml for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001) or the HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using VisUCyte Antigen Retrieval Reagent-Basic (Catalog # VCTS021). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to the cytoplasm of stroma cells. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.</p>

PREPARATION AND STORAGE	
<b>Reconstitution</b>	Reconstitute lyophilized material at 0.2 mg/ml in sterile PBS. For liquid material refer to CoA for concentration. For liquid material, refer to CoA for concentration.
<b>Shipping</b>	Lyophilized product is shipped at ambient temperature. Liquid small pack size (-SP) is shipped with polar packs. Upon receipt, store immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**BACKGROUND**

Decorin is a small secreted chondroitin/dermatan sulfate proteoglycan in the family of small leucine-rich proteoglycans (SLRPs). SLRP family members are characterized by N-terminal and C-terminal cysteine-rich regions which flank the central region containing 10-12 tandem leucine-rich repeats (LRR) (1, 2). The human Decorin cDNA encodes a 359 amino acid (aa) precursor that includes a 16 aa signal sequence and a 14 aa propeptide. The 329 aa mature protein contains twelve LRR. Alternate splicing generates five isoforms with variable length deletions (3). Mature human and mouse Decorin share 80% aa sequence identity. In Decorin, serine 34 in the N-terminal domain is O-glycosylated. Naturally occurring Decorin proteoglycan has a molecular mass of approximately 100 kDa, and the deglycosylated Decorin core protein has a mass of approximately 40 kDa. Decorin binds to fibronectin, TGF- $\beta$ , and type I and type II collagens. The binding of Decorin to various molecules was reported to be mediated *via* the core protein. Decorin has been implicated in matrix assembly and has also been reported to suppress the growth of various tumor cell lines by activating the epidermal growth factor receptor.

**References:**

1. Naito, Z. (2005) J. Nippon Med. Sch. **72**:137.
2. Matsushima, N. *et al.* (2005) Cell. Mol. Life Sci. **62**:2771.
3. Danielson, K. *et al.* (1993) Genomics **15**:146.