

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Decorin in ELISAs.
Source	Monoclonal Mouse IgG ₁ Clone # 1072709
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human Decorin Gly17-Lys359 Accession # P07585
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Flow Cytometry Titration recommended for optimal concentration with starting range of 0.1-1 µg/1 million cells. Sample used for this experiment was HEK293 cell line transfected with human Decorin.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage **Protect from light. Do not freeze.**

- 12 months from date of receipt, 2 to 8 °C as supplied.

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-β, 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.

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