

## BACKGROUND

Fibulins constitute a small family of five extracellular matrix proteins that share a distinctive carboxyl-terminal globular domain and a tandem array of calcium-binding epidermal growth factor-like modules. They bind various extracellular ligands including fibronectin and calcium. They play important role during organ development, in particular, during the differentiation of heart, skeletal and neuronal structures. The fibulins not only share structural similarities but also have overlapping expression patterns. A notable common feature is that all fibulins are abundantly distributed in elastic tissues.<sup>1</sup> The biological roles of most fibulins have been elucidated through studies of gene-targeted mouse models.<sup>2</sup> Fibulin-1 null mice die perinatally, as a result of massive bleeding associated with abnormal endothelial lining of small blood vessels and severe defects in the basement membranes of many organs, including the kidneys and lungs. Fibulin-2 null mice develop normally and are phenotypically indistinguishable from their wild-type littermates. It is suggested that Fibulin-2 is dispensable for mouse development and elastic fiber formation, possibly due to functional redundancy with Fibulin-1. Mice deficient in fibulin-3 show early aging and develop multiple large hernias in a genetic background-dependent manner. Mice lacking either Fibulin-4 or Fibulin-5 have highly disrupted and disorganized elastic fibers, leading to developmental defects in skin, arterial blood vessels, and lungs. Although the elastic fiber abnormalities are similar in these two mouse mutants, the Fibulin-4 null mice are perinatally lethal, whereas the Fibulin-5-deficient mice can survive until adulthood. The animal models demonstrate that Fibulin-4 and Fibulin-5 play essential yet non-redundant roles in elastic fiber formation during development. Fibulin-2 and Fibulin-5 cooperatively function to form the internal elastic lamina during postnatal development by directing the assembly of elastic fibers, and are responsible for maintenance of the adult vessel wall after injury.<sup>3</sup>

### References:

1. Zhang, R.Z. et al: Genomics 22:425-30, 1994
2. Sicot, F.-X. et al: Mol. Cell. Biol. 28:1061-7, 2008
3. Chapman, S.L. et al: Arteriosclerosis, Thrombosis, and Vascular Biology 30:68-74, 2010

## TECHNICAL INFORMATION

### Source:

Fibulin-2 Antibody is a mouse monoclonal antibody raised against purified recombinant human Fibulin-2 fragment expressed in *E. coli*.

### Specificity and Sensitivity:

This antibody detects Fibulin-2 proteins without cross-reactivity with other family members.

**Storage Buffer:** PBS and 30% glycerol

### Storage:

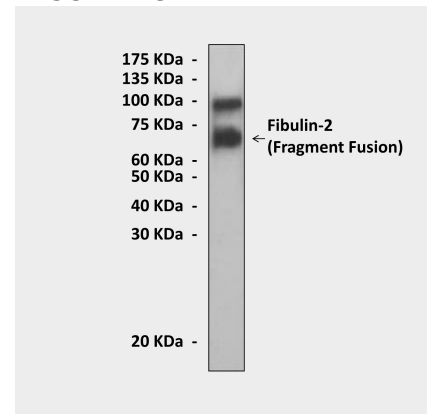
Store at -20°C for at least one year. Store at 4°C for frequent use. Avoid repeated freeze-thaw cycles.

## APPLICATIONS

Application:	*Dilution:
WB	1:1000
IP	n/d
IHC	n/d
ICC	n/d
FACS	n/d

*\*Optimal dilutions must be determined by end user.*

## QUALITY CONTROL DATA



Western Blot detection of Fibulin-2 proteins in 293 cell lysate containing overexpressed hlgGfc-hFibulin-2 fragment fusion protein (72kDa) using Fibulin-2 Antibody.

