

## Product Information

**Anti-Calponin antibody, Mouse monoclonal**  
clone hCP, purified from hybridoma cell culture

Product Number **SAB4200710**

### Product Description

Anti-Calponin antibody, Mouse monoclonal (mouse IgG1 isotype) is derived from the hCP hybridoma (also cited as CALP), produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mouse immunized with human uterus smooth muscle extract.<sup>1-</sup>

<sup>2</sup> The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Product Number ISO2. The antibody is purified from culture supernatant of hybridoma cells.

Monoclonal Anti-Calponin specifically recognizes smooth muscle Calponin. The antibody shows reactivity for human,<sup>1,2</sup> mouse,<sup>3</sup> rabbit,<sup>4</sup> rat,<sup>5</sup> bovine,<sup>5</sup> monkey,<sup>6</sup> pig,<sup>7</sup> canine,<sup>8</sup> hamster<sup>9</sup> and ferret<sup>10</sup> Calponin. No cross reactivity is detected with skeletal, cardiac, or non-muscle tissue Calponin<sup>1</sup>. Monoclonal Anti-Calponin does not stain epithelial, endothelial or connective fibroblast cells.<sup>1</sup> The product may be used in several immunochemical techniques including Immunoblotting (~34 kDa, in human uterus and additional band of ~27 kDa (L-Calponin) may also be detected),<sup>1</sup> Immunoprecipitation<sup>1</sup> and Immunohistochemistry.<sup>1-5</sup>

Calponin is an F-actin, calmodulin, and tropomyosin binding protein which presents in both the cytoskeleton and contractile machinery of smooth muscle (SM) cells.<sup>12</sup> The interaction of Calponin with actin is shown to inhibit myosin Mg-ATPase activity. The binding strength of calponin to tropomyosin is weakened in the presence of Ca<sup>2+</sup>. Calponin is involved in a variety cell processes including smooth muscle contraction, cell movement, shape change, angiogenesis, exocytosis and endocytosis.

Monoclonal anti-Calponin can be used for identification and localization of Calponin in SM elements. In addition, Calponin levels may serve as a prognostic factor in hepatocellular carcinoma, renal cell carcinoma, osteosarcoma and melanoma.<sup>13</sup>

### Reagent

Supplied as a solution in 0.01 M phosphate buffered saline pH 7.4, containing 15 mM sodium azide.

Antibody Concentration: ~ 1.0 mg/mL

### Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

### Storage/Stability

For continuous use, store at 2-8°C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

### Product Profile

Immunohistochemistry: a working concentration of 10-20 µg/mL is recommended using heat-retrieved formalin-fixed, paraffin-embedded human tonsil sections.

**Note**: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

### References

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