

# Calponin-1 (Smooth Muscle Marker); Clone CNN1/832 & CALP (Concentrate)

**Availability/Contents:**

| <u>Item #</u> | <u>Volume</u> |
|---------------|---------------|
| RA0101-C.5    | 0.5 ml        |

**Description:**

Species: Mouse

Immunogen: Recombinant human CNN1 protein (CNN1/832); Crude human uterus extract (CALP)

Clone: CNN1/832 & CALP

Isotype: IgG1, kappa (CNN1/832); IgG1, kappa (CALP)

Entrez Gene ID: 1264 (Human); 65204 (Rat)

Hu Chromosome Loc.: 19p13.2

Synonyms: Calponin 1 basic smooth muscle; Calponin H1 smooth muscle; Calponin-1; CNN1; Cnn1; Sm Calp; SMCC

Mol. Weight of Antigen: 34kDa

Format: 200µg/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide.

Specificity: In Western blotting, this antibody reacts with only the 34kDa form of calponin in extracts of human aortic medial smooth muscle and is unreactive with fibroblast extracts of cultivated human foreskin.

Background: Multiple isoelectric variants of calponin have been identified, however only two molecular weight isoforms exist; a 34kDa form and a 29kDa form. Expression of the 29kDa form, I-calponin, is primarily restricted to muscle of the urogenital tract, whereas the higher molecular weight variant has been demonstrated in vascular and visceral smooth muscle. Calponin is a calmodulin, F-actin and tropomyosin binding protein, which is thought to be involved in the regulation of smooth muscle contraction. Calponin expression is restricted to smooth muscle cells and has been shown to be a marker of the differentiated (contractile) phenotype of developing smooth muscle.

Species Reactivity: Human and Rat. Others not known.


Positive Control: Myoepithelial cells in breast ducts.

Cellular Localization: Cytoplasmic

Titer/ Working Dilution: Immunohistochemistry (Frozen and Formalin-fixed): 0.5-1 µg/ml  
Flow Cytometry: 0.5-1 µg/million cells  
Immunofluorescence: 1-2 µg/ml  
Western Blotting: 0.5-1 µg/ml  
Immunoprecipitation: 1-2 µg/500µg protein lysate

Microbiological State: This product is not sterile.

Storage: 2° C  8° C



ScyTek Laboratories, Inc.  
205 South 600 West  
Logan, UT 84321  
U.S.A.

**Uses/Limitations:** Not to be taken internally.  
For Research Use Only.  
This product is intended for qualitative immunohistochemistry with normal and neoplastic formalin-fixed, paraffin-embedded tissue sections, to be viewed by light microscopy.  
Do not use if reagent becomes cloudy.  
Do not use past expiration date.  
Non-Sterile.

**Ordering Information and Current Pricing at [www.scytek.com](http://www.scytek.com)**

**Procedure:**


1. **Tissue Section Pretreatment (Required):** Staining of formalin fixed, paraffin embedded tissue sections is significantly enhanced by pretreatment with EDTA Buffer (10X) HIER Solution (pH 8.0) (ScyTek catalog# ETA).
2. **Primary Antibody Incubation Time:** We suggest an incubation period of 30 minutes at room temperature. However, depending upon the fixation conditions and the staining system employed, optimal incubation should be determined by the user.
3. **Visualization:** For maximum staining intensity we recommend the “UltraTek HRP Anti-Polyvalent Lab Pack” (ScyTek catalog# UHP125, see IFU for instructions) combined with the “DAB Chromogen/Substrate Bulk Pack (High Contrast)” (ScyTek catalog# ACV500, see IFU for instructions).


**Precautions:** Contains Sodium Azide as a preservative (0.09% w/v).  
Do not pipette by mouth.  
Avoid contact of reagents and specimens with skin and mucous membranes.  
Avoid microbial contamination of reagents or increased nonspecific staining may occur.  
This product contains no hazardous material at a reportable concentration according to U.S. 29 CFR 1910.1200, OSHA Hazardous Communication Standard and EC Directive 91/155/EC.

**References:**

1. Tang, D.C., et al. 1996. Structure-function relations of smooth muscle Calponin. The critical role of Serine 175. J. Biol. Chem. 271: 8605-8611.
2. Frid MG, et al. Phenotypic changes of human smooth muscle cells during development: Late expression of heavy caldesmon and calponin. Dev Biol 1992; 153:185

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Storage: 2° C  8° C



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