


Anti-Calponin 1 antibody [EP798Y] ab46794

 **RabMAb**

★★★★★ **20 Abreviews** **234 References** **21 图像**

概述

产品名称	Anti-Calponin 1抗体[EP798Y]
描述	兔单克隆抗体[EP798Y] to Calponin 1
宿主	Rabbit
经测试应用	适用于: WB, IHC-P, ICC/IF 不适用于: Flow Cyt
种属反应性	与反应: Mouse, Rat, Human, Pig 预测可用于: Sheep 
免疫原	Synthetic peptide within Human Calponin 1 aa 250-350 (C terminal). The exact sequence is proprietary. Database link: <u>P51911</u>
阳性对照	ICC/IF: C2C12 and HeLa cells; Pig and mouse aortic smooth muscle cells. IHC-P: Rat lung tissue; Mouse cardiac muscle tissue; Human lung carcinoma, kidney, lung, tonsil, uterus, smooth muscle and skeletal muscle tissues. WB: Human bladder lysates, Pig heart lysates, Mouse bladder lysates and Rat bladder lysates.
常规说明	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information <u>see here</u> . Our RabMAb [®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <u>RabMAb[®] patents</u> .

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
解离常数 (K _D)	K _D = 1.73 x 10 ⁻¹⁰ M

10⁻¹⁰



[Learn more about K_D](#)

存储溶液	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol, 0.05% BSA
纯度	Protein A purified
克隆	单克隆
克隆编号	EP798Y
同种型	IgG

应用

The Abpromise guarantee [Abpromise™](#) 承诺保证使用 ab46794 于以下的经测试应用

“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

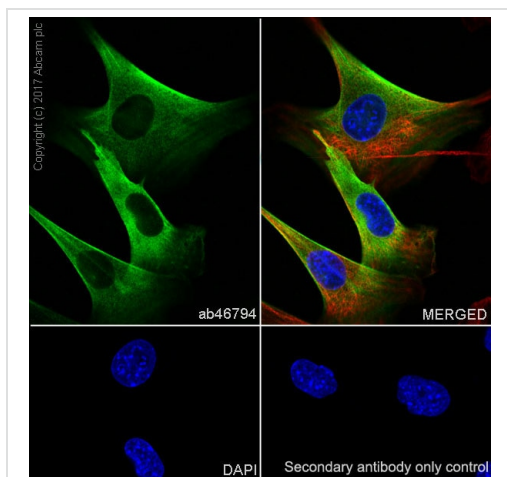
应用	Ab评论	说明
WB	★★★★★ (9)	1/5000. Detects a band of approximately 34 kDa. For unpurified use at 1/20,000.
IHC-P	★★★★★ (3)	1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. For unpurified use at 1/100 - 1/250.
ICC/IF	★★★★★ (4)	1/500. For unpurified use at 1/100 - 1/250.

应用说明 Is unsuitable for Flow Cyt.

靶标

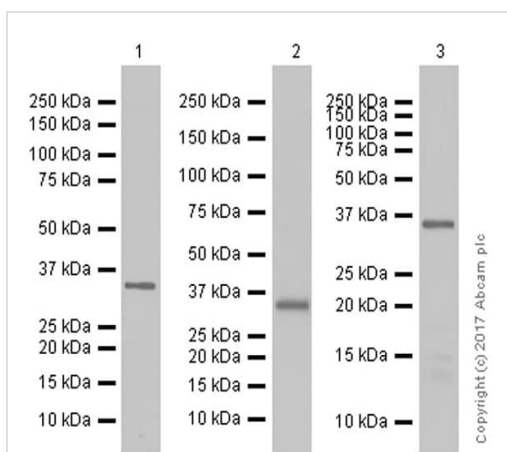
功能	Thin filament-associated protein that is implicated in the regulation and modulation of smooth muscle contraction. It is capable of binding to actin, calmodulin, troponin C and tropomyosin. The interaction of calponin with actin inhibits the actomyosin Mg-ATPase activity.
组织特异性	Smooth muscle, and tissues containing significant amounts of smooth muscle.
序列相似性	Belongs to the calponin family. Contains 3 calponin-like repeats. Contains 1 CH (calponin-homology) domain.

图片



Immunocytochemistry/ Immunofluorescence - Anti-Calponin 1 antibody [EP798Y] (ab46794)

Immunocytochemistry/ Immunofluorescence analysis of C2C12 (Mouse myoblasts myoblast) cells labeling Calponin 1 with purified ab46794 at 1/500 dilution. Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Cells were counterstained with **ab195889** Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/ml). **ab150077** Goat anti rabbit IgG(Alexa Fluor® 488) was used as the secondary antibody at 1:1000 dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Western blot - Anti-Calponin 1 antibody [EP798Y] (ab46794)

All lanes : Anti-Calponin 1 antibody [EP798Y] (ab46794) at 1/50000 dilution (purified)

Lane 1 : Human bladder lysates

Lane 2 : Mouse bladder lysates

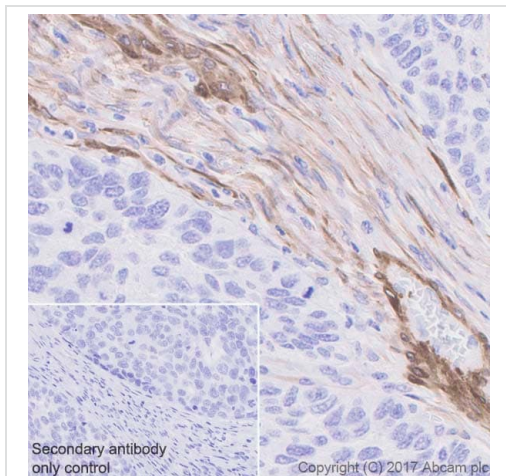
Lane 3 : Rat bladder lysates

Lysates/proteins at 15 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

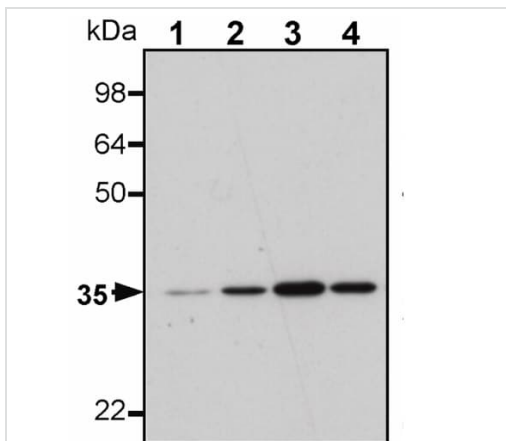
Blocking and diluting buffer: 5% NFDM/TBST.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calponin 1 antibody [EP798Y] (ab46794)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human lung carcinoma tissue sections labeling Calponin 1 with purified ab46794 at a 1:1000 dilution. Heat mediated antigen retrieval was performed using **ab93684** (Tris/EDTA buffer, pH 9.0). Tissue was counterstained with hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used.

PBS instead of the primary antibody was used as the negative control (inset).



Western blot - Anti-Calponin 1 antibody [EP798Y] (ab46794)

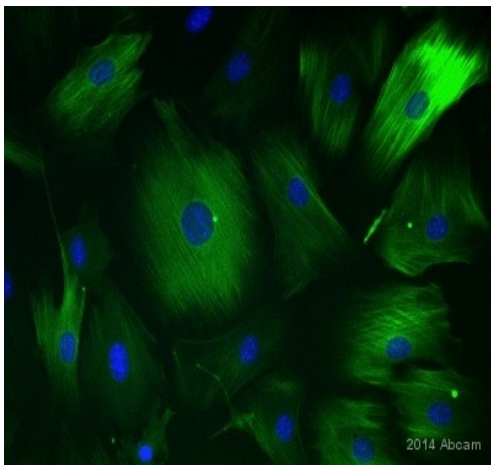
Torrado Met al. Targeted gene-silencing reveals the functional significance of myocardin signaling in the failing heart. PLoS One 6:e26392 (2011). Reproduced under the Creative Commons license <http://creativecommons.org/licenses/by/4.0/>

All lanes : Anti-Calponin 1 antibody [EP798Y] (ab46794)

Lanes 1-2 : Non-Failing pig LV-myocardium tissue lysate.

Lanes 3-4 : Failing pig LV-myocardium tissue lysate injected with DOX.

Ab46794 was used to stain Calponin 1 in Neonatal piglets injected with Dox (Failing LV myocardium) and PBS (Non-Failing LV myocardium). At the protein level a more than twofold increase in Calponin 1 was observed in Dox-injected animals compared to controls (PBS).

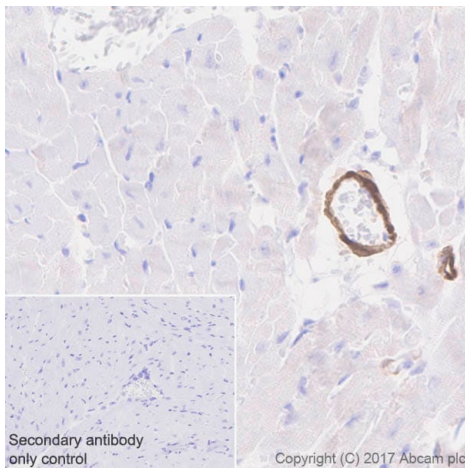


Immunocytochemistry/ Immunofluorescence - Anti-Calponin 1 antibody [EP798Y] (ab46794)

Paraformaldehyde-fixed, 0.25% Triton X-100 permeabilized mouse thoracic aortic smooth muscle cells labeling Calponin 1 using ab46794 at 1/100 dilution in ICC/IF, followed by a Goat Anti-Rabbit IgG H&L (Alexa Fluor 488) ([ab150077](#)) at 1/400 dilution.

1.5% BSA used as blocking agent for 30 minutes at 25°C. Incubated with primary antibody for 24 hours at 4°C.

VSMCs were seeded to 35-mm plates in a low density avoiding overlapping of cells. After fixation, VSMCs were treated with 0.25% Triton X-100 for 20 minutes.

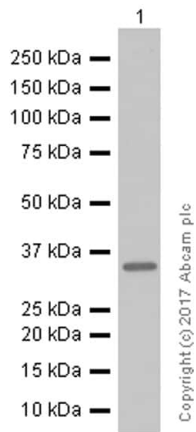


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calponin 1 antibody [EP798Y] (ab46794)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse cardiac muscle tissue sections labeling Calponin 1 with purified ab46794 at 1:1000 dilution. Heat mediated antigen retrieval was performed using [ab93684](#) (Tris/EDTA buffer, pH 9.0). Tissue was counterstained with hematoxylin.

ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used.

PBS instead of the primary antibody was used as the negative control (inset).



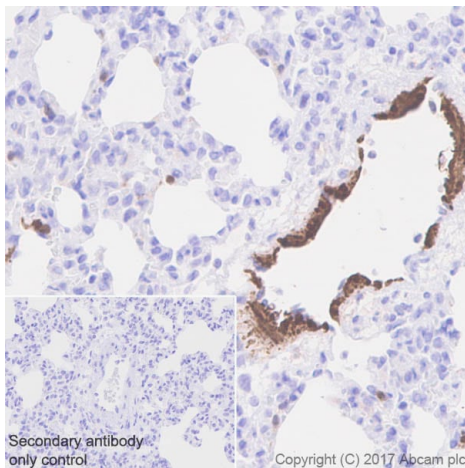
Western blot - Anti-Calponin 1 antibody [EP798Y]
(ab46794)

Anti-Calponin 1 antibody [EP798Y] (ab46794) at 1/5000 dilution
(purified) + Pig heart lysates at 15 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

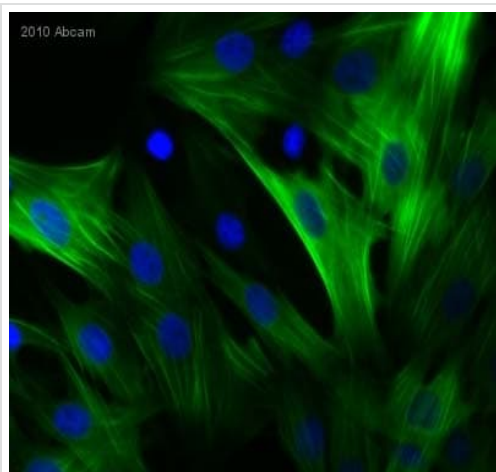
Blocking and diluting buffer: 5% NFDM/TBST.



Immunohistochemistry (Formalin/PFA-fixed paraffin-
embedded sections) - Anti-Calponin 1 antibody
[EP798Y] (ab46794)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat lung tissue sections labeling Calponin 1 with purified ab46794 at 1:1000 dilution. Heat mediated antigen retrieval was performed using [ab93684](#) (Tris/EDTA buffer, pH 9.0). Tissue was counterstained with hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody.

PBS instead of the primary antibody was used as the negative control (inset).

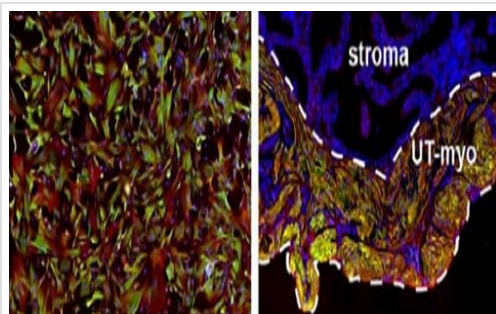


Immunocytochemistry/ Immunofluorescence - Anti-Calponin 1 antibody [EP798Y] (ab46794)

Image kindly supplied by Mrs Jordan Carbary through Abreview

Unpurified ab46794 staining Calponin 1 in porcine aortic smooth muscle cells by Immunocytochemistry/ Immunofluorescence.

The cells were paraformaldehyde fixed, permeabilized in 0.1% Triton X-100. Samples were then incubated with primary antibody at 1/50 for 1 hour at 25°C. The secondary antibody used was **ab6717** Goat polyclonal to Rabbit IgG - H&L (FITC) (green) used at a 1/400 dilution.

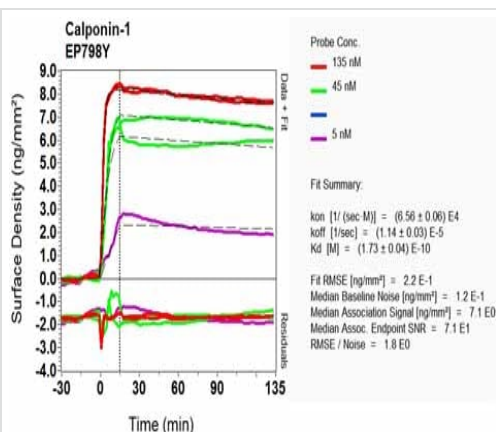


Immunocytochemistry/ Immunofluorescence - Anti-Calponin 1 antibody [EP798Y] (ab46794)

Herington et al PLoS One. 2015 Nov 24;10(11):e0143243. doi: 10.1371/journal.pone.0143243. eCollection 2015. Fig 1. Reproduced under the Creative Commons license <http://creativecommons.org/licenses/by/4.0/>

Representative photomicrograph of mouse UT-myo cells (Left panel) and murine uterine myometrium (Right panel) stained with smooth muscle cell markers, alpha-SMA (red) and ab46794 (green) and DAPI (blue). UT-myo cells and whole-mount uterine tissue were collected from day 19 of mouse pregnancy. The placenta and embryo were removed from whole-mount tissue sections.

For full details please see paper.

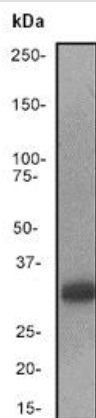


OIR-D Scanning - Anti-Calponin 1 antibody [EP798Y] (ab46794)

Equilibrium disassociation constant (K_D)

Learn more about K_D

[Click here to learn more about \$K_D\$](#)



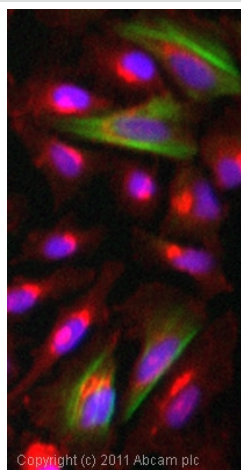
Western blot - Anti-Calponin 1 antibody [EP798Y] (ab46794)

Anti-Calponin 1 antibody [EP798Y] (ab46794) at 1/20000 dilution (unpurified) + Human bladder lysate at 10 µg

Secondary

Goat anti-rabbit HRP at 1/2000 dilution

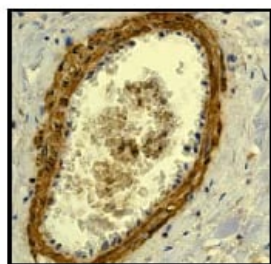
Observed band size: 34 kDa



Immunocytochemistry/ Immunofluorescence - Anti-Calponin 1 antibody [EP798Y] (ab46794)

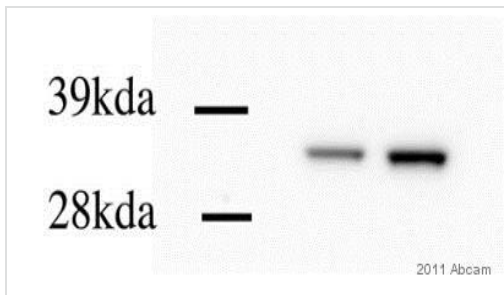
ICC/IF image of unpurified ab46794 stained HeLa (Human epithelial cell line from cervix adenocarcinoma) cells.

Cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilize the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab46794, 5µg/ml) overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti-rabbit IgG - H&L, pre-adsorbed (**ab96899**) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calponin 1 antibody [EP798Y] (ab46794)

Immunohistochemical staining of paraffin-embedded human smooth muscle using unpurified ab46794 at 1/100 dilution



Western blot - Anti-Calponin 1 antibody [EP798Y] (ab46794)

Image courtesy of an anonymous Abreview.

All lanes : Anti-Calponin 1 antibody [EP798Y] (ab46794) at 1/20000 dilution (unpurified)

All lanes : Whole tissue lysate prepared from bovine lymph vessels

Lysates/proteins at 10 µg per lane.

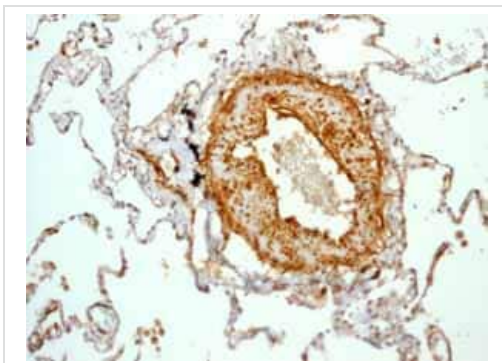
Secondary

All lanes : HRP conjugated goat anti-rabbit polyclonal at 1/5000 dilution

Developed using the ECL technique.

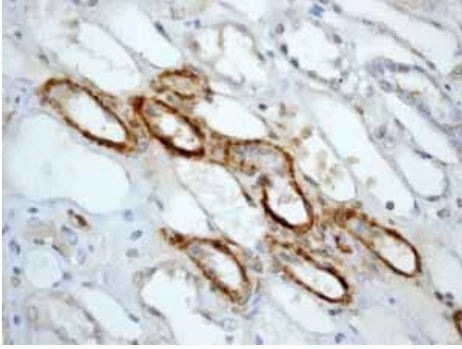
Observed band size: 34 kDa

Exposure time: 1 minute



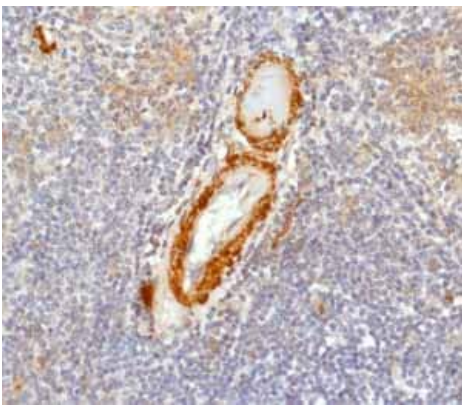
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calponin 1 antibody [EP798Y] (ab46794)

Unpurified ab46794 showing positive staining in normal lung vessel tissue.



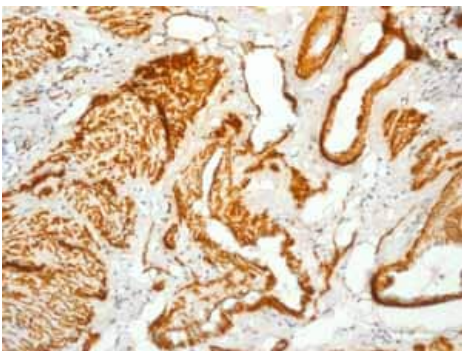
Unpurified ab46794 showing positive staining in normal kidney vessels tissue.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calponin 1 antibody [EP798Y] (ab46794)



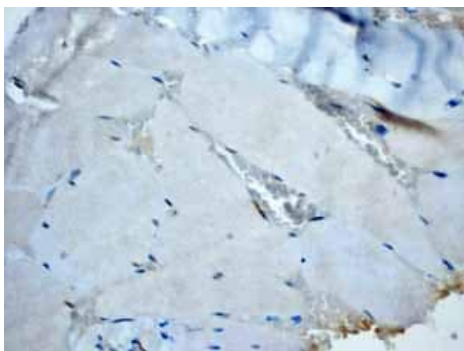
Unpurified ab46794 showing positive staining in normal tonsil vessel tissue.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calponin 1 antibody [EP798Y] (ab46794)



Unpurified ab46794 showing positive staining in normal uterus tissue.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calponin 1 antibody [EP798Y] (ab46794)



Unpurified ab46794 showing negative staining in skeletal muscle tissue.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calponin 1 antibody [EP798Y] (ab46794)

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Anti-Calponin 1 antibody [EP798Y] (ab46794)

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