



Anti CPI-17 (PPP1R14A)

Background

CPI-17 (PPP1R14A) is an endogenous inhibitor protein for the myosin phosphatase and regulates smooth muscle contraction. CPI-17 is mainly expressed in mature smooth muscle cells and has been found in neuronal cells and a subset of cancer cells to a lesser extent. Fluctuations in CPI-17 expression have been linked to smooth muscle diseases, such as hypertension, asthma, erectile dysfunction, gastrointestinal, and urinary dysmotilities.

Product type	Primary Antibody
Immunogen	Pig CPI-17 recombinant protein
Raised in	Rabbit
Source	Serum
Purification	Protein G affinity purification
Buffer	Phosphate-buffered saline with 0.002% NaN ₃ as preservative
Concentration	0.9 mg/mL
Volume	50 µL
Label	Unlabeled
Specificity	Mouse, rat, rabbit, human, pig, pigeon
Storage	Store at -20°C
Reference	Eto, M. and Kitazawa, T. J Smooth Muscle Res, 2017, 53, 1-19, PMID 28260704 Eto, M. et al. Biochem Biophys Res Comm, 2013, 434, 137-142, PMID 23541585 Eto, M., et al. FEBS Letters 1997, 410, 356-360, PMID 9237662
Recommended Dilutions	Western blotting (1:1,000) , Immunohistochemistry (1:50 - 500), Immunoprecipitation (10 µg)

Other applications have not been tested or not reactive.
Optimal dilutions/concentrations should be determined by the end user.

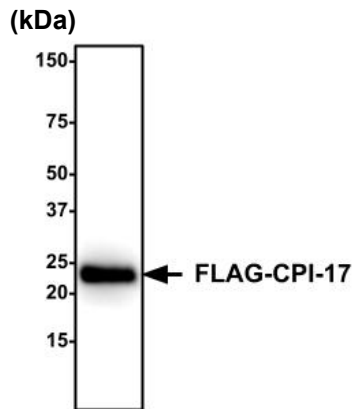


Fig 1. Western blotting

COS1 cells expressing FLAG-CPI-17 were lysed with Laemmuli buffer and subjected to Western blotting. Membrane: Immun-Blot PVDF (0.2 μ m), Blocking: BlockingOne-P for 30 min at RT, Primary antibody : 1:1,000 dilution with Tris-buffered saline with 0.1% Tween 20 for 1 h at RT, Secondary antibody: HRP-conjugated anti-rabbit IgG for 45 min at RT, Detection: ECL for 5 min

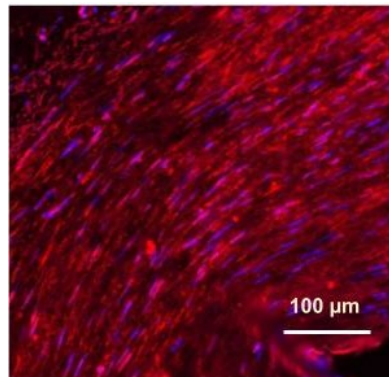


Fig 2. Immunohistochemistry

Paraffin-embedded human arterial section (OrigGene #CS808380) was subjected to deparaffinization and pretreatment for 10 min with HistoVT One (Nacalai #06380) in a steam cooker. Staining conditions used are; blocking for 1 h at room temperature with BlockingOne-P (Nacalai #05999), 1st Ab incubation overnight at 4 $^{\circ}$ C with anti CPI-17 (1:200), 2nd Ab incubation for 1 h at room temperature with Cy3-conjugated anti-rabbit IgG (Jackson ImmunoResearch #111-165-045; Red) and Hoechst dye (0.5 μ g/mL; Purple). Imaging was conducted using Keyence BZ (20x objective)

For research use only, Not for diagnostic use.



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