Human Calponin 1 Alexa Fluor® 594-conjugated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF7900T
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Calponin 1 in direct ELISAs. In direct ELISAs, less than 5% cross-reactivity with recombinant human CNN-3 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human Calponin 1 Ser2-Ala297 Accession # P51911
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

CNN-1 (calponin-1 [calcium and calmodulin-binding troponin T-like protein]; also calponin basic, CaP and calponin H1) is a 32-36 kDa cytoplasmic member of the calponin family of proteins. Although reportedly expressed in fibroblasts and endothelial cells, it actually appears to be restricted to smooth muscle and smooth muscle-like cells such as myoepithalium and myofibroblasts in the adult. CNN-1 interacts with F-actin in a phosphorylation-dependent manner. When nonphosphorylated, CNN-1 blocks actomyosin ATPase activity, contributing to the stabilization of actin stress fiber bundles. Thus, CNN-1 expression inhibits cell motility and the formation of podosomes. Human CNN-1 is 297 amino acids (aa) in length. It contains one CH/calponin homology domain (aa 30-127), and three consecutive calponin-like repeats (aa 164-268). The repeats are suggested to mediate actin binding. There are five potential Ser/Thr phosphorylation sites. Full-length human CNN-1 shares 97% aa sequence identity with mouse CNN-1.

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