

Coronin 2A (D-16)-R: sc-32202-R

BACKGROUND

Coronins are a family of WD repeat-containing, actin-binding proteins that localize to submembrane areas and regulate cell motility and cytoskeletal rearrangement. Coronin 1A (CORO1A, CLIPINA, CLABP, CLIPINA, TACO, p57) can form coiled coil-mediated homotrimeric complexes that influence early phagosome formation. PKC-dependent phosphorylation of Coronin 1B (CORO1B) at Serine 2 regulates leading edge dynamics and cell motility in fibroblasts through interactions with Arp2/3 complex. Coronin 1C (CORO1C, Coronin 3, HCRNN4) is abundant in differentiating Neuro-2a cells, PC-12 cells and primary oligodendrocytes, where it is thought to influence neuron morphogenesis and migration. Coronin 2A (CORO2A, CLIPINB, IR10, WDR2) is a component of the approximately 1.5-2 megadalton N-CoR (nuclear receptor corepressor) complex of 10-12 proteins, which recruits HDACs to generate repressive chromatin. Coronin 7 (CORO7, CRN7) localizes to the Golgi membrane and influences the organization of intracellular membrane compartments and vesicular trafficking. Coronin 2B (CORO2B, CLIPINC) and Coronin 6 (CORO6) are similar to other members of this family, since they possess a conserved basic N-terminal motif and 3-10 WD repeats clustered in one to two core domains.

REFERENCES

- Mishima, M., et al. 1999. Coronin localizes to leading edges and is involved in cell spreading and lamellipodium extension in vertebrate cells. *J. Cell Sci.* 112: 2833-2842.
- Spoerl, Z., et al. 2002. Oligomerization, F-actin interaction, and membrane association of the ubiquitous mammalian Coronin 3 are mediated by its carboxyl terminus. *J. Biol. Chem.* 277: 48858-48867.
- Yoon, H.G., et al. 2003. Purification and functional characterization of the human N-CoR complex: the roles of HDAC3, TBL1 and TBLR1. *EMBO J.* 22: 1336-1346.
- Rybakin, V., et al. 2004. Coronin 7, the mammalian POD-1 homologue, localizes to the Golgi apparatus. *FEBS Lett.* 573: 161-167.
- Gatfield, J., et al. 2005. Association of the leukocyte plasma membrane with the actin cytoskeleton through coiled coil-mediated trimeric Coronin 1 molecules. *Mol. Biol. Cell* 16: 2786-2798.
- Hasse, A., et al. 2005. Coronin 3 and its role in murine brain morphogenesis. *Eur. J. Neurosci.* 21: 1155-1168.
- Yan, M., et al. 2005. Coronin-1 function is required for phagosome formation. *Mol. Biol. Cell* 16: 3077-3087.
- Rybakin, V., et al. 2005. Coronin proteins as multifunctional regulators of the cytoskeleton and membrane trafficking. *Bioessays* 27: 625-632.
- Cai, L., et al. 2005. Phosphorylation of coronin 1B by protein kinase C regulates interaction with Arp2/3 and cell motility. *J. Biol. Chem.* 280: 31913-31923.

CHROMOSOMAL LOCATION

Genetic locus: CORO2A (human) mapping to 9q22.33; Coro2a (mouse) mapping to 4 B1.

SOURCE

Coronin 2A (D-16)-R is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of Coronin 2A of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-32202 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Coronin 2A (D-16)-R is recommended for detection of Coronin 2A of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Coronin 2A (D-16)-R is also recommended for detection of Coronin 2A in additional species, including equine and canine.

Suitable for use as control antibody for Coronin 2A siRNA (h): sc-44685, Coronin 2A siRNA (m): sc-44686, Coronin 2A shRNA Plasmid (h): sc-44685-SH, Coronin 2A shRNA Plasmid (m): sc-44686-SH, Coronin 2A shRNA (h) Lentiviral Particles: sc-44685-V and Coronin 2A shRNA (m) Lentiviral Particles: sc-44686-V.

Molecular Weight of Coronin 2A: 57 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.