

# Coronin 1A (14.1): sc-100925

## 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.

## CHROMOSOMAL LOCATION

Genetic locus: CORO1A (human) mapping to 16p11.2; Coro1a (mouse) mapping to 7 F3.

## SOURCE

Coronin 1A (14.1) is a mouse monoclonal antibody raised against recombinant Coronin 1A of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Coronin 1A (14.1) is recommended for detection of Coronin 1A of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Coronin 1A siRNA (h): sc-60434, Coronin 1A siRNA (m): sc-60435, Coronin 1A shRNA Plasmid (h): sc-60434-SH, Coronin 1A shRNA Plasmid (m): sc-60435-SH, Coronin 1A shRNA (h) Lentiviral Particles: sc-60434-V and Coronin 1A shRNA (m) Lentiviral Particles: sc-60435-V.

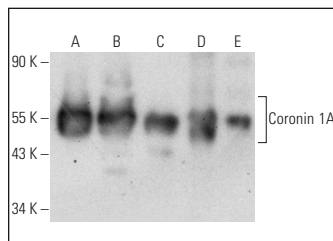
Molecular Weight of Coronin 1A: 57 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, HL-60 whole cell lysate: sc-2209 or Jurkat whole cell lysate: sc-2204.

## STORAGE

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

## DATA



Coronin 1A (14.1): sc-100925. Western blot analysis of Coronin 1A expression in Jurkat (A), HL-60 (B) and RAW 264.7 (C) whole cell lysates and mouse spleen (D) and rat spleen (E) tissue extracts.

## SELECT PRODUCT CITATIONS

- Chen, J.C., et al. 2011. The protease allergen Pen c 13 induces allergic airway inflammation and changes in epithelial barrier integrity and function in a murine model. *J. Biol. Chem.* 286: 26667-26679.
- Eitzen, G., et al. 2011. Proteomic analysis of secretagogue-stimulated neutrophils implicates a role for Actin and Actin-interacting proteins in Rac2-mediated granule exocytosis. *Proteome Sci.* 9: 70.
- Suo, D., et al. 2014. Coronin-1 is a neurotrophin endosomal effector that is required for developmental competition for survival. *Nat. Neurosci.* 17: 36-45.
- Siegmund, K., et al. 2016. Proof of principle for a T lymphocyte intrinsic function of Coronin 1A. *J. Biol. Chem.* 291: 22086-22092.
- Roybal, K.T., et al. 2016. Computational spatiotemporal analysis identifies WAVE2 and cofilin as joint regulators of costimulation-mediated T cell Actin dynamics. *Sci. Signal.* 9: rs3.
- Stocker, T.J., et al. 2018. The Actin regulator Coronin-1A modulates platelet shape change and consolidates arterial thrombosis. *Thromb. Haemost.* 118: 2098-2111.
- Wu, C.S., et al. 2020. ASC modulates HIF-1α stability and induces cell mobility in OSCC. *Cell Death Dis.* 11: 721.
- Arts, J.J., et al. 2021. Endothelial junctional membrane protrusions serve as hotspots for neutrophil transmigration. *Elife* 10: e66074.
- Pandey, H.S., et al. 2022. Coronin 1A facilitates calcium mobilization and promotes astrocyte reactivity in HIV-1 neuropathogenesis. *FASEB Bioadv.* 4: 254-272.

## RESEARCH USE

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