

Anillin (L-20): sc-54857

BACKGROUND

Anillin, also known as scraps homolog, is an evolutionary conserved actin binding protein required for cytokinesis that was first identified in *Drosophila melanogaster*. Anillin is an ubiquitously expressed protein with highest expression levels in the central nervous system. It is predominantly found in the nucleus, and it localizes to the cleavage furrow during cytokinesis, forming a ring with the help of Rac GTPase. During cytokinesis, Anillin interacts with CD2AP and functions to concentrate Rho A and maintain the localization of active Myosin. In Anillin knockout cells the cleavage furrow fails to complete ingression. Anillin expression levels fluctuate with the cell cycle, peaking in mitosis. Before the cell exits into G₁, Anillin associates with E-cadherin and is ubiquitinated by the anaphase-promoting complex/cyclosome (APC/C). APC/C recognizes the D-box domain at the N-terminal region of Anillin. Anillin is commonly overexpressed in tumors and may serve as a potential biomarker.

REFERENCES

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- Suzuki, C., Daigo, Y., Ishikawa, N., Kato, T., Hayama, S., Ito, T., Tsuchiya, E. and Nakamura, Y. 2005. ANLN plays a critical role in human lung carcinogenesis through the activation of Rho A and by involvement in the phosphoinositide 3-kinase/AKT pathway. *Cancer Res.* 65: 11314-11325.

CHROMOSOMAL LOCATION

Genetic locus: ANLN (human) mapping to 7p14.2; Anln (mouse) mapping to 9 A3.

SOURCE

Anillin (L-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Anillin 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-54857 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Anillin (L-20) is recommended for detection of Anillin 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Anillin (L-20) is also recommended for detection of Anillin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Anillin siRNA (h): sc-61970, Anillin siRNA (m): sc-61971, Anillin shRNA Plasmid (h): sc-61970-SH, Anillin shRNA Plasmid (m): sc-61971-SH, Anillin shRNA (h) Lentiviral Particles: sc-61970-V and Anillin shRNA (m) Lentiviral Particles: sc-61971-V.

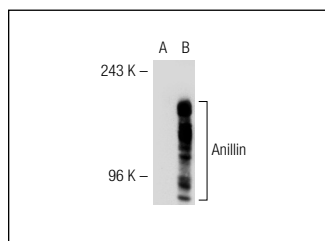
Molecular Weight of Anillin: 190 kDa.

Positive Controls: Anillin (m): 293T Lysate: sc-118400.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Anillin (L-20): sc-54857. Western blot analysis of Anillin expression in non-transfected: sc-117752 (A) and mouse Anillin transfected: sc-118400 (B) 293T whole cell lysates.

RESEARCH USE

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

MONOS
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Try **Anillin (B-10): sc-271814** or **Anillin (A-2): sc-365181**, our highly recommended monoclonal alternatives to Anillin (L-20).