

Anillin Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP57799**Specification****Anillin Polyclonal Antibody - Product Information**

Application	WB, IHC-P, IHC-F, IF
Primary Accession	O9NQW6
Reactivity	Rat, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	124 KDa
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Anillin
Epitope Specificity	621-720/1124
Isotype	IgG
Purity	
affinity purified by Protein A	
Buffer	Preservative: 0.02% Proclin300, Constituents: 1% BSA, 0.01M PBS, pH7.4.
SUBCELLULAR LOCATION	Nucleus. Cytoplasm, cytoskeleton. Cytoplasm, cell cortex. Note=Mainly found in the nucleus during interphase. Colocalizes with cortical F-actin upon nuclear envelope breakdown in mitosis and subsequently concentrates in the area of the prospective contractile ring in anaphase. This pattern persists until telophase, when the protein becomes concentrated in the midbody.
SIMILARITY	Contains 1 PH domain.
SUBUNIT	Interacts with F-actin. Interacts with CD2AP. May interact with RHOA. Interacts with FZR1/CDH1 during mitotic exit.
Post-translational modifications	Phosphorylated during mitosis. Ubiquitinated, and this requires FZR1/CDH1.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Background Descriptions

Anillin, also known as scraps homolog, is an evolutionarily conserved Actin- binding protein required for cytokinesis that was first identified in *Drosophila melanogaster*. Anillin is a 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. Anillin is required for cytokinesis. It is essential for the structural integrity of the cleavage furrow and for completion of cleavage furrow ingression.

Anillin Polyclonal Antibody - Additional Information

Gene ID 54443

Other Names

Anillin, ANLN

Target/Specificity

Ubiquitously expressed. Present at highest levels in the brain, at high levels in the placenta and testis, at intermediate levels in the intestine, ovary, skeletal muscle and thymus and at lower levels in heart, kidney, liver, lung, pancreas, prostate and spleen. Overexpressed in many tumor types including breast, colorectal, endometrial, hepatic, kidney, lung, ovarian and pancreatic tumors.

Dilution

WB~~1:1000<br \>IHC-P~~N/A<br \>IHC-F~~N/A<br \>IF~~1:50~200

Format

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Anillin Polyclonal Antibody - Protein Information

Name ANLN

Function

Required for cytokinesis (PubMed:16040610). Essential for the structural integrity of the cleavage furrow and for completion of cleavage furrow ingression. Plays a role in bleb assembly during metaphase and anaphase of mitosis (PubMed:23870127). May play a significant role in podocyte cell migration (PubMed:24676636).

Cellular Location

Nucleus. Cytoplasm, cytoskeleton. Cytoplasm, cell cortex. Cell projection, bleb. Note=Mainly found in the nucleus during interphase. Colocalizes with cortical F-actin upon nuclear envelope breakdown in mitosis and subsequently concentrates in the area of the prospective contractile ring in anaphase. This pattern persists until telophase, when the protein becomes concentrated in the midbody

Tissue Location

Ubiquitously expressed. Present at highest levels in the brain, at high levels in the placenta and testis, at intermediate levels in the intestine, ovary, skeletal muscle and thymus and at lower

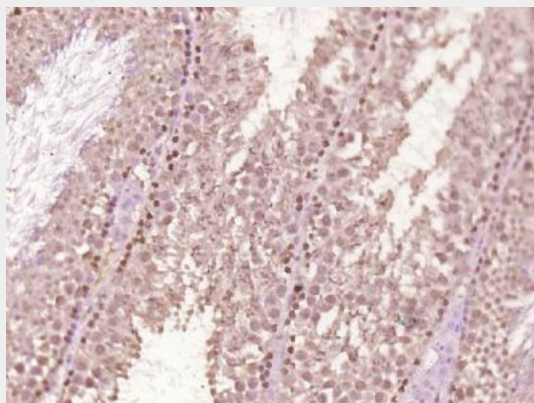
levels in heart, kidney, liver, lung, pancreas, prostate and spleen. In the kidney, it is widely expressed in tubules, but sparsely expressed in the glomerulus (PubMed:24676636). Expression is significantly increased in renal biopsy specimens from idiopathic FSGS (PubMed:24676636). Overexpressed in many tumor types including breast, colorectal, endometrial, hepatic, kidney, lung, ovarian and pancreatic tumors.

Anillin Polyclonal Antibody - Protocols

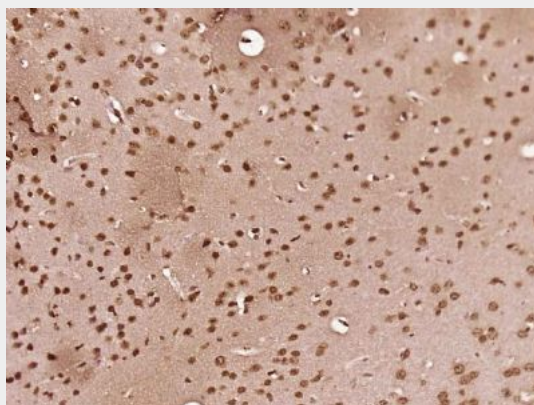
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anillin Polyclonal Antibody - Images

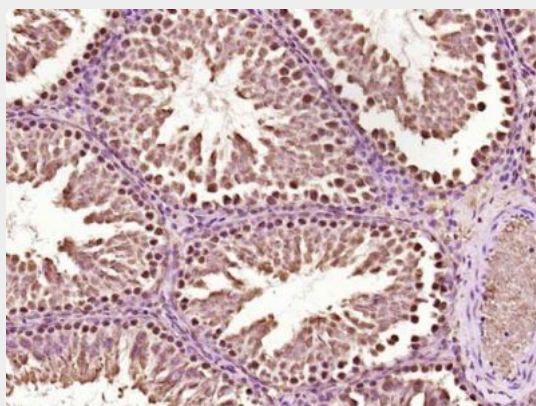


Paraformaldehyde-fixed, paraffin embedded (Mouse testis); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Anillin) Polyclonal Antibody, Unconjugated (bs-20482R) at 1:500 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.

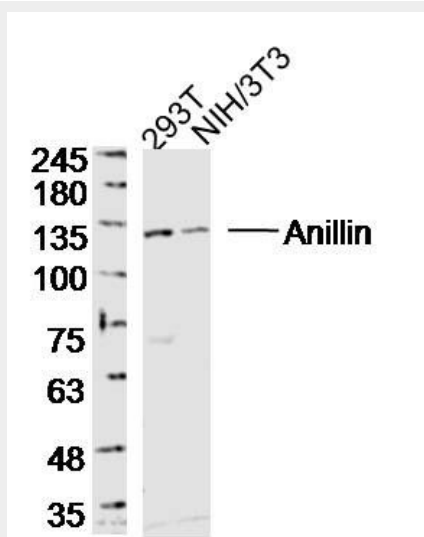


Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium

citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Anillin) Polyclonal Antibody, Unconjugated (bs-20482R) at 1:500 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Rat testis); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Anillin) Polyclonal Antibody, Unconjugated (bs-20482R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Sample:

293T Cell (Human) Lysate at 40 ug

NIH/3T3 Cell (Mouse) Lysate at 40 ug

Primary: Anti-Anillin (bs-20482R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 124 kD

Observed band size: 124 kD