

Product Specification Sheet

Human Actin-binding protein anillin (ANLN) Antibodies

<input type="checkbox"/> Cat. # AB-23011-A	Rabbit Anti-Human ANLN (ANLN- phosphor S672) IgG (aff pure)	SIZE: 100 ul
<input type="checkbox"/> Cat. # AB-23011-P	Human ANLN (ANLN- phosphor S672) peptide	SIZE: 100 ug
<input type="checkbox"/> Cat. # AB-23011C-P	Human ANLN (non-phosphor) control peptide	SIZE: 100 ug

Actin-binding protein anillin is a protein that in humans is encoded by the ANLN gene. It is a 124 kDa scaffolding protein involved in cytokinesis. It is found in high concentrations near the cleavage furrow and coincides with RhoA, the key regulator of contractile-ring formation. At the N-terminus, there is an actin and myosin binding domain; at the C terminus, there is a PH domain, which is conserved and is essential for its function. Anillin is highly enriched and abundant in metazoan cleavage furrows and provides an excellent cytological marker. Anillin is phosphorylated during mitosis. Anillins in metazoans are heavily phosphorylated; however, the kinases responsible for the phosphorylation are unknown at the present time. In humans and Drosophila, anillins are recruited to the equatorial cortex in a RhoA-dependent manner. This recruitment is independent of other cytoskeletal Rho targets such as myosin, F-actin, and Rho-kinase. It has been observed that anillin proteolysis is triggered after mitotic exit by the Anaphase Promoting Complex (APC).

Protein Function Required for cytokinesis. Essential for the structural integrity of the cleavage furrow and for completion of cleavage furrow ingression.

Subcellular location Nucleus. Cytoplasm › cytoskeleton. Cytoplasm › cell cortex.

Protein name Actin-binding protein anillin

Gene name ANLN

Similarity Contains 1 PH domain.

Source of Antigen and Antibodies

Antigen	16-aa peptides of Human Actin-binding protein anillin (ANLN); (protein accession # Q9NQW6) (designated control ANLN- phosphor peptide AB-23011-P) conjugated to KLH; Epitope location, internal; and non-phosphor control peptide designated as AB-23011C-P.
Ab Host/type	Rabbit, polyclonal Aff pure IgG (cat # AB-23011-A) purified over the antigen column
2-ab	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available
-ve control	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as -ve control

Form & Storage of Antibodies/Peptide Control

Affinity pure IgG

- 100 ug/100ul solution lyophilized powder

Supplied in **Buffer:** PBS+0.1% BSA

Reconstitute powder in PBS at 1mg/ml

Control/blocking peptide

- 100 ug/100 ul solution lyophilized powder

Supplied in Buffer: PBS pH 7.5,

Reconstitute powder in PBS at 1 mg/ml.

Storage

Short-term: unopened, undiluted liquid vials at 20°C and powder at 4°C or -20°C..

Long-term: at -20°C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at -20°C or below.

Shipping: 4°C for solutions and room temp for powder

Recommended Usage

Western Blotting (1:1K-5K for neat serum and 1-10 ug/ml for affinity pure using Chemiluminescence technique).

ELISA (1:10K-1:100K; using 50-100 ng of control peptide/well).

Histochemistry & Immunofluorescence: not tested. We recommend the use of affinity pure antibody at 2-20 ug/ml.

Specificity & Cross-reactivity

Human AB-23011-P peptide sequences are found to be 100% conserved in mouse and rat. Antibody reactivity has not been established between species. AB-23011-P is phosphorylated at S672 and present in isoforms 1 and 2. The control immunogenic phosphor peptide AB-23011-P and non-phosphor peptide AB-23011C-P are available to confirm the specificity of antibodies. The control peptides, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity.

General References Oegema K., (2000). J Cell Biol 150 (3): 539–52. Piekny, AJ., (2008). Current biology : CB 18 (1): 30–6. Piekny AJ., (2010). Semin Cell Dev Biol. 21(9):881-91.

**This product is for In vitro research use only.*

Related materials available from ADI

Antibodies:

ReadyBlot **Kidney Protein Explorer**-Study distribution of protein in various regions of the mouse/Human kidney using the pre-made protein blots; Western blot recycling kit-Use the same blot for WNK1-4.

AB-23011-A-P

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