ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

Anti-Annexin A2 Antibody

Cat # ANX211-A	Rabbit Anti-Mouse Annexin A2 (Anxa2) IgG, Affinity Pure	**SIZE**: 100 ug
Cat # ANX211-P	Mouse Annexin A2 (Anxa2) Control/Blocking peptide	**SIZE**: 250 ug
Cat # ANX211-S	Rabbit Anti-Mouse Annexin A2 (Anxa2) antiserum	**SIZE:** 100 ul

Annexin A2 (ANXA2), also known as lipocortin II or calpactin-1 heavy chain, is a 36 kDa member of the annexin superfamily that binds phospholipids and other proteins in a calcium-dependent manner via annexin repeats. Annexin A2 contains four such repeats through which it mediates protein-protein and protein-lipid interactions. It forms a constitutive heterotetramer with S100A10, acting as a bridge between the actin cytoskeleton, plasma membrane, and endocytotic vesicle machinery. Originally identified as a protein inhibitor of phospholipase A2, annexin A2 has subsequently been shown to interact with an array of protein and non-protein partners, including F-actin, spectrin, SNARE complexes, RNA, and virus particles. Annexin A2 has also been shown to have receptor-like activity and is detected on the surface of macrophages and vascular endothelial cells where it mediates macrophage activation and Factor Xa signaling, respectively. Upregulation of annexin A2 at the cell surface is thought to be modulated by phosphorylation at Tyr23 by Src. Interestingly, phosphorylation at Tyr23 has recently been shown to be required for cell surface expression of annexin A2 where it mediates motility, invasiveness, and overall metastatic potential of certain pancreatic cancer cells. Annexin A2 has also been shown to be heavily phosphorylated on serine residues in response to PKC activation via a pleiotropic mechanism.

Source of Antigen and Antibodies

Antigen	Mix of 2 peptides between 20-21 amino acids long of Mouse Annexin A1 (Uniprot: P07356) conjugated to KLH
Ab Host/type	Rabbit, polyclonal Affinity pure IgG (**cat # ANX211-A**) purified over the antigen column
Secondary-antibody	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available
Isotype control	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC. IP, CHIP, and Flow cytometry as a negative control.

Form & Storage of Antibodies/Peptide Control

Affinity pure IgG

□ _____ ul Solution; Concentration: _____
Supplied in **Buffer**: PBS+0.1% BSA

□ lyophilized powder
Reconstitute powder in PBS at 1mg/ml

Control/blocking peptide

□ 250 ug/250 ul □ Solution □ Lyophilized powder
Reconstitute powder in PBS at 1 mg/ml.

Storage

Short-term: undiluted liquid vials at 4°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: 0.5-2 ug/ml using affinity pure. 1:1k-1:5k for antiserum. Band expected at ~37 kDa.

ELISA: Assay dependent concentration.

IHC-ICC: 5-10 ug/ml

*Above concentrations are a suggestion and user's must optimize assay based on their conditions. Antibody may work in other applications such as Flow Cytometry or IP. These methods have not been tested by ADI.

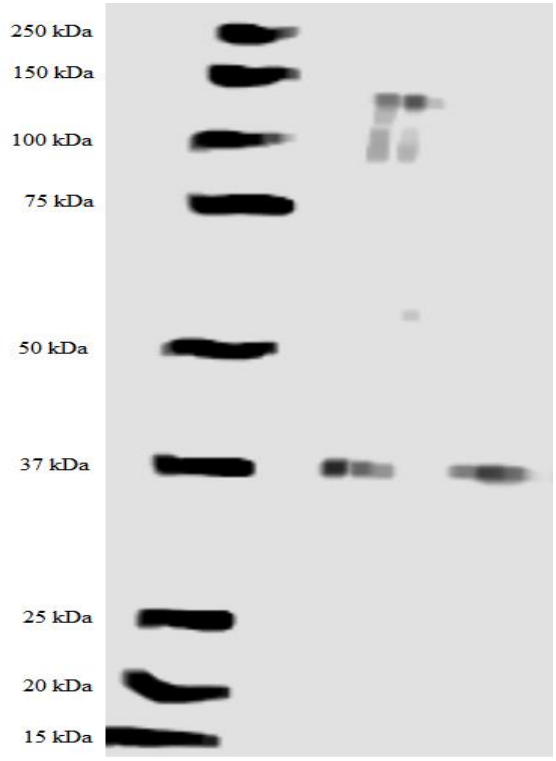
Specificity & Cross-reactivity

Mix of 2 peptides which are 95%-100% conserved in Mouse, Human, Bovine, Horse, Rat, Pig, Dog, and Cat. Reactivity has not been confirmed in other species. Control/blocking peptide can be used for antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity.

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

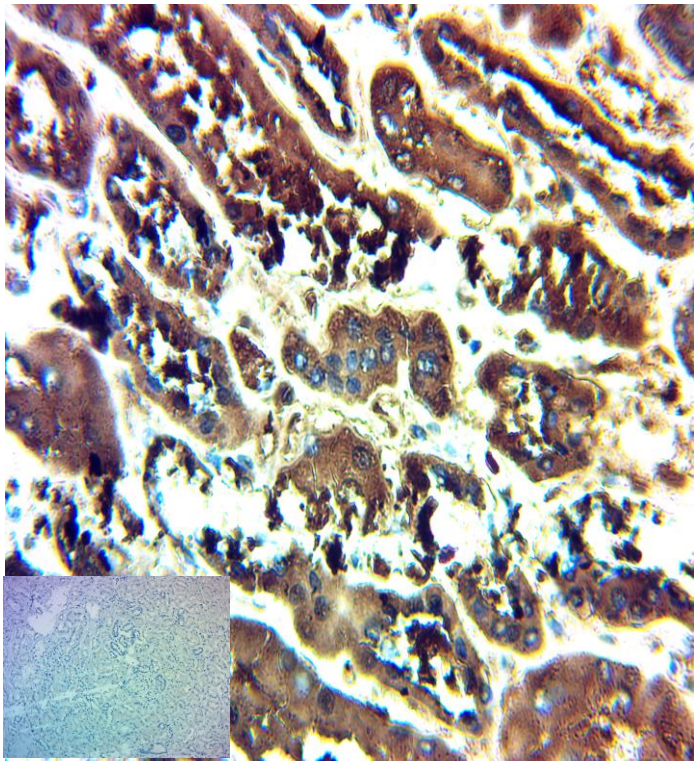
Related materials available from ADI

Catalog#	Description
ANX211-P	Mouse Annexin A2 (Anxa2) Control/Blocking peptide #1
ANX211-S	Rabbit anti-Mouse Annexin A2 (Anxa2) antiserum
ANX311-A	Rabbit anti-Mouse Annexin A3 (Anxa3) IgG. Aff. Pure
ANX311-P	Mouse Annexin A3 (Anxa3) Control/Blocking peptide
ANX-200-A2A	Human Anti-Annexin A2 IgG ELISA Kit, Quantitative, 96 tests
ANX111-A	Rabbit anti-Mouse Annexin A1 (Anxa1) IgG. Affinity Pure
ANX111-P	Mouse Annexin A1 (Anxa1) Control/Blocking peptide #1
ANX111-S	Rabbit anti-Mouse Annexin A1 (Anxa1) antiserum
ANX211-A	Rabbit anti-Mouse Annexin A2 (Anxa2) IgG. Aff. Pure
ANX311-S	Rabbit anti-Mouse Annexin A3 (Anxa3) antiserum
ANX-215-A2A	Mouse Anti-Annexin A2 IgM ELISA Kit, Quantitative, 96 tests
9580	Human Annexin A1 (ANXA1) ELISA Kit, 96 tests, Quantitative
9590	Human Annexin A3 (ANXA3) ELISA Kit, 96 tests, Quantitative
9585	Human Annexin A2 (ANXA2) ELISA Kit, 96 tests, Quantitative



25 ug of HeLa (Lane#1) and 3T3-L1 (Lane#2) were heated for 5 minutes at 95oC then loaded onto a 10% SDS-PAGE gel. Gels were run for ~40 minutes at 200V and transferred to a 0.2 um nitrocellulose membrane. Ladders were annotated with ADI antigen-antibody pen and blocked for 1 hour with 1% Fish plasma (Aquablock, EastcoastBio). ANX211-A was diluted with TBST+3% BSA to 1 ug/ml and incubated overnight at 4oC. Blot was washed with PBS-T 3 times for 5 minutes. Goat anti-rabbit IgG HRP (ADI cat#20320) was added at 1:2500 dilution for 1 hour at room temperature. Blot was washed 3 times with PBS-T for 5 minutes. ADI Femto ECL substrate (ADI cat#80210) was added for 5 minutes and the blot was imaged on a LI-COR C-digit high sensitivity. Band is observed at ~37 kDa

Western Blot Positive controls: HeLa (Human), 3T3-L1 (Mouse)



5 um Human Kidney FFPE tissue was baked for 20 minutes at 60ºC. Slides were dewaxed then antigen retrieval was performed with EDTA pH 8 for 10 minutes at 95ºC in a microwave. Slides were blocked with 2.5% normal goat serum for 30 minutes at room temperature. Slides were diluted with PBST+3% BSA to 10 ug/ml ANX2 antibody and incubated for 3 hours at 4ºC. Slides were washed 3 times for 5 minutes with PBST and incubated with a Goat anti-rabbit HRP Polymer detection reagent at room temperature for 30 minutes. Slides were washed with PBST 3 times and incubated with DAB for 1 minute. Slides were briefly washed with water and counterstained with Gill's II Hematoxylin for 3 minutes. Slides were washed in running tap water for 5 minutes then dipped in 0.3% Ammonium water for 10 dips and washed in distilled water. Slides were mounted with Advantage aqueous mounting medium and cover slipped. Inlet represents slide incubated with non-immune Rabbit IgG instead of primary antibody.

ANX211-A-S-P 171226IA

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