

Anti-Annexin A2 Antibody

Catalog # ABO10672

### Specification

# Anti-Annexin A2 Antibody - Product Information

ApplicationWB, IHC-P, IHC-FPrimary AccessionP07355HostRabbitReactivityHuman, Mouse, RatClonalityPolyclonalFormatLyophilizedDescriptionRabbit IgG polyclonal antibody for Annexin A2(ANXA2) detection. Tested with WB, IHC-P, IHC-F inHuman;Mouse;Rat.Human;Mouse;Rat.

**Reconstitution** Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

## Anti-Annexin A2 Antibody - Additional Information

Gene ID 302

**Other Names** Annexin A2, Annexin II, Annexin-2, Calpactin I heavy chain, Calpactin-1 heavy chain, Chromobindin-8, Lipocortin II, Placental anticoagulant protein IV, PAP-IV, Protein I, p36, ANXA2, ANX2, ANX2L4, CAL1H, LPC2D

Calculated MW 38604 MW KDa

**Application Details** Immunohistochemistry(Frozen Section), 0.5-1 μg/ml, Human, Mouse, Rat, -<br>Immunohistochemistry(Paraffin-embedded Section), 0.5-1 μg/ml, Human, Mouse, Rat, By Heat<br>Western blot, 0.1-0.5 μg/ml, Human, Mouse, Rat<br>

### **Subcellular Localization**

Secreted, extracellular space, extracellular matrix, basement membrane . Melanosome . In the lamina beneath the plasma membrane. Identified by mass spectrometry in melanosome fractions from stage I to stage IV. Translocated from the cytoplasm to the cell surface through a Golgi-independent mechanism.

**Protein Name** Annexin A2

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

#### Immunogen

A synthetic peptide corresponding to a sequence in the middle region of human Annexin



A2(121-141aa RAEDGSVIDYELIDQDARDLY), different from the rat sequence by one amino acid.

**Purification** Immunogen affinity purified.

**Cross Reactivity** No cross reactivity with other proteins

Storage

At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities Belongs to the annexin family.

## **Anti-Annexin A2 Antibody - Protein Information**

### Name ANXA2

Synonyms ANX2, ANX2L4, CAL1H, LPC2D

#### Function

Calcium-regulated membrane-binding protein whose affinity for calcium is greatly enhanced by anionic phospholipids. It binds two calcium ions with high affinity. May be involved in heat-stress response. Inhibits PCSK9-enhanced LDLR degradation, probably reduces PCSK9 protein levels via a translational mechanism but also competes with LDLR for binding with PCSK9 (PubMed:<a href="http://www.uniprot.org/citations/18799458" target="\_blank">18799458</a>, PubMed:<a href="http://www.uniprot.org/citations/2848640" target="\_blank">22848640</a>, PubMed:<a href="http://www.uniprot.org/citations/2848640" target="\_blank">24808179</a>). Binds to endosomes damaged by phagocytosis of particulate wear debris and participates in endosomal membrane stabilization, thereby limiting NLRP3 inflammasome activation (By similarity). Required for endothelial cell surface plasmin generation and may support fibrinolytic surveillance and neoangiogenesis (By similarity).

#### **Cellular Location**

Secreted, extracellular space, extracellular matrix, basement membrane. Melanosome. Note=In the lamina beneath the plasma membrane. Identified by mass spectrometry in melanosome fractions from stage I to stage IV. Translocated from the cytoplasm to the cell surface through a Golgi-independent mechanism

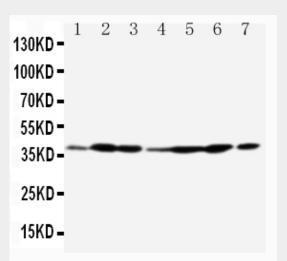
### Anti-Annexin A2 Antibody - Protocols

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

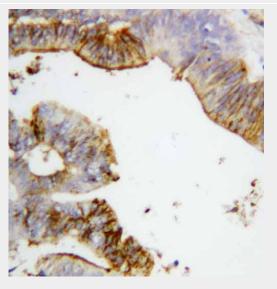
- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>



# Anti-Annexin A2 Antibody - Images



Anti-Annexin A2 antibody, ABO10672, Western blottingLane 1: Rat Testis Tissue LysateLane 2: Rat Lung Tissue LysateLane 3: Rat Ovary Tissue LysateLane 4: MCF-7 Cell LysateLane 5: SMMC Cell LysateLane 6: A549 Cell LysateLane 7: JURKAT Cell Lysate



Anti-Annexin A2 antibody, ABO10672, IHC(P)IHC(P): Human Intestinal Cancer Tissue

## Anti-Annexin A2 Antibody - Background

Annexin A2 also known as annexin II is a protein that in humans is encoded by the ANXA2 gene. The ANXA2 gene has three pseudogenes located on chromosomes 4, 9 and 10, respectively. Multiple alternatively spliced transcript variants encoding different isoforms have been found for this gene. This protein is a member of the annexin family. Members of this calcium-dependent phospholipid-binding protein family play a role in the regulation of cellular growth and in signal transduction pathways. This protein functions as an autocrine factor which heightens osteoclast formation and bone resorption. Richard et al.(1994) presented an integration of the physical, expression, and genetic maps of human chromosome 15. They placed the ANXA2 gene in their region IV, i.e., 15q21-q22, thus confirming the previous localization.