

# Annexin A1 Antibody (Center) Blocking Peptide

Synthetic peptide Catalog # BP6584c

### **Specification**

## Annexin A1 Antibody (Center) Blocking Peptide - Product Information

**Primary Accession** 

P04083

# Annexin A1 Antibody (Center) Blocking Peptide - Additional Information

Gene ID 301

#### **Other Names**

Annexin A1, Annexin I, Annexin-1, Calpactin II, Calpactin-2, Chromobindin-9, Lipocortin I, Phospholipase A2 inhibitory protein, p35, ANXA1, ANX1, LPC1

## **Target/Specificity**

The synthetic peptide sequence used to generate the antibody <a href=/products/AP6584c>AP6584c</a> was selected from the Center region of human Annexin A1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

### **Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

#### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

#### **Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

### Annexin A1 Antibody (Center) Blocking Peptide - Protein Information

### Name ANXA1

Synonyms ANX1, LPC1

### **Function**

Plays important roles in the innate immune response as effector of glucocorticoid-mediated responses and regulator of the inflammatory process. Has anti-inflammatory activity (PubMed:<a href="http://www.uniprot.org/citations/8425544" target="\_blank">8425544</a>). Plays a role in glucocorticoid-mediated down-regulation of the early phase of the inflammatory response (By similarity). Contributes to the adaptive immune response by enhancing signaling cascades that are triggered by T-cell activation, regulates differentiation and proliferation of activated T-cells (PubMed:<a href="http://www.uniprot.org/citations/17008549" target="\_blank">17008549</a>). Promotes the differentiation of T-cells into Th1 cells and negatively regulates differentiation into Th2 cells (PubMed:<a href="http://www.uniprot.org/citations/17008549"



target="\_blank">17008549</a>). Has no effect on unstimulated T cells (PubMed:<a href="http://www.uniprot.org/citations/17008549" target="\_blank">17008549</a>). Negatively regulates hormone exocytosis via activation of the formyl peptide receptors and reorganization of the actin cytoskeleton (PubMed:<a href="http://www.uniprot.org/citations/19625660" target="\_blank">19625660</a>). Has high affinity for Ca(2+) and can bind up to eight Ca(2+) ions (By similarity). Displays Ca(2+)-dependent binding to phospholipid membranes (PubMed:<a href="http://www.uniprot.org/citations/2532504" target="\_blank">2532504</a>, PubMed:<a href="http://www.uniprot.org/citations/8557678" target="\_blank">8557678</a>). Plays a role in the formation of phagocytic cups and phagosomes. Plays a role in phagocytosis by mediating the Ca(2+)-dependent interaction between phagosomes and the actin cytoskeleton (By similarity).

### **Cellular Location**

Nucleus. Cytoplasm. Cell projection, cilium {ECO:0000250|UniProtKB:P46193}. Cell membrane. Membrane: Peripheral membrane protein. Endosome membrane {ECO:0000250|UniProtKB:P07150}; Peripheral membrane protein {ECO:0000250|UniProtKB:P07150}. Basolateral cell membrane {ECO:0000250|UniProtKB:P51662}. Apical cell membrane {ECO:0000250|UniProtKB:P10107}. Lateral cell membrane {ECO:0000250|UniProtKB:P10107}. Secreted. Secreted, extracellular space. Cell membrane; Peripheral membrane protein; Extracellular side. Secreted, extracellular exosome. Cytoplasmic vesicle, secretory vesicle lumen. Cell projection, phagocytic cup {ECO:0000250|UniProtKB:P10107}. Early endosome {ECO:0000250|UniProtKB:P19619}. Cytoplasmic vesicle membrane {ECO:0000250|UniProtKB:P19619}; Peripheral membrane protein {ECO:0000250|UniProtKB:P19619}. Note=Secreted, at least in part via exosomes and other secretory vesicles. Detected in exosomes and other extracellular vesicles (PubMed:25664854). Alternatively, the secretion is dependent on protein unfolding and facilitated by the cargo receptor TMED10; it results in the protein translocation from the cytoplasm into ERGIC (endoplasmic reticulum-Golgi intermediate compartment) followed by vesicle entry and secretion (PubMed:32272059). Detected in gelatinase granules in resting neutrophils (PubMed:10772777). Secretion is increased in response to wounding and inflammation (PubMed:25664854). Secretion is increased upon T-cell activation (PubMed:17008549). Neutrophil adhesion to endothelial cells stimulates secretion via gelatinase granules, but foreign particle phagocytosis has no effect (PubMed:10772777). Colocalizes with actin fibers at phagocytic cups (By similarity). Displays calcium-dependent binding to phospholipid membranes (PubMed:2532504, PubMed:8557678) {ECO:0000250|UniProtKB:P10107, ECO:0000269|PubMed:10772777, ECO:0000269|PubMed:17008549, ECO:0000269|PubMed:2532504, ECO:0000269|PubMed:25664854, ECO:0000269|PubMed:32272059, ECO:0000269|PubMed:8557678}

### **Tissue Location**

Detected in resting neutrophils (PubMed:10772777). Detected in peripheral blood T-cells (PubMed:17008549). Detected in extracellular vesicles in blood serum from patients with inflammatory bowel disease, but not in serum from healthy donors (PubMed:25664854) Detected in placenta (at protein level) (PubMed:2532504). Detected in liver.

## Annexin A1 Antibody (Center) Blocking Peptide - Protocols

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

#### Blocking Peptides

Annexin A1 Antibody (Center) Blocking Peptide - Images

# Annexin A1 Antibody (Center) Blocking Peptide - Background

Annexin I belongs to a family of Ca(2+)-dependent phospholipid binding proteins which have a molecular weight of approximately 35,000 to 40,000 and are preferentially located on the cytosolic face of the plasma membrane. Annexin I protein has an apparent relative molecular mass of 40





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kDa, with phospholipase A2 inhibitory activity. Since phospholipase A2 is required for the biosynthesis of the potent mediators of inflammation, prostaglandins and leukotrienes, annexin I may have potential anti-inflammatory activity.

# Annexin A1 Antibody (Center) Blocking Peptide - References

Shimoji, T., J. Cell. Biochem. 106 (6), 1123-1135 (2009) Ang, E.Z., Mol. Cancer Res. 7 (2), 266-274 (2009)