

# **KD-Validated Anti-Annexin A1 Mouse Monoclonal Antibody**

Mouse monoclonal antibody Catalog # AGI1986

### **Specification**

# **KD-Validated Anti-Annexin A1 Mouse Monoclonal Antibody - Product Information**

Application WB
Primary Accession P04083

Reactivity Rat, Human, Mouse

Clonality Monoclonal Isotype Mouse IgG1

Calculated MW Predicted, 39 kDa, observed, 33 kDa KDa

Gene Name ANXA1

Aliases ANXA1; Annexin A1; ANX1; LPC1;

Phospholipase A2 Inhibitory Protein; Chromobindin-9; Calpactin II; Calpactin-2; Annexin-1; Epididymis Secretory Sperm Binding Protein; Annexin I (Lipocortin I);

Lipocortin I; Annexin I; P35

Immunogen Recombinant protein of human Annexin A1

beta

# KD-Validated Anti-Annexin A1 Mouse Monoclonal Antibody - 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, Annexin Ac2-26, ANXA1, ANX1, LPC1

#### KD-Validated Anti-Annexin A1 Mouse Monoclonal Antibody - 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" 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



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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.

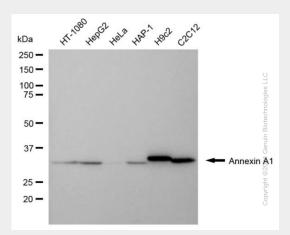
# KD-Validated Anti-Annexin A1 Mouse Monoclonal Antibody - Protocols

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

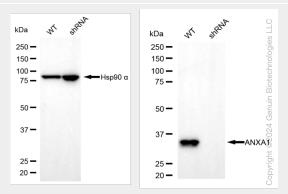
- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

### KD-Validated Anti-Annexin A1 Mouse Monoclonal Antibody - Images





Western blotting analysis using anti-annexin A1 antibody (Cat#AGI1986). Total cell lysates (30  $\mu$ g) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-annexin A1 antibody (Cat#AGI1986, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.



Western blotting analysis using anti-annexin A1 antibody (Cat#AGI1986). Annexin A1 expression in wild-type (WT) and annexin A1 (ANXA1) shRNA knockdown (KD) HeLa cells with 20  $\mu g$  of total cell lysates. Hsp90  $\alpha$  serves as a loading control. The blot was incubated with anti-annexin A1 antibody (Cat#AGI1986, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.