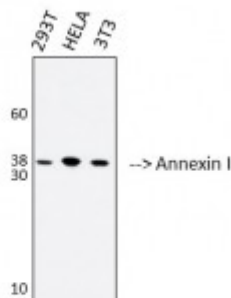


Anti-Annexin I antibody



Western Blot (WB) analysis of 1. 293T 2. HELA 3. 3T3 cells using Anti-Annexin I antibody. (STJ98699)



Description

Annexin I is a protein encoded by the ANXA1 gene which is approximately 38,7 kDa. Annexin I is localised to the cell membrane. It is involved in peptide ligand-binding receptors, signalling by GPCR, cytokine signalling in immune system and RET signalling. It is a membrane-localized protein that binds phospholipids and plays an important role in the innate immune response as an effector of glucocorticoid-mediated responses and is a regulator of the inflammatory process. Annexin I is expressed in resting neutrophils. Mutations in the ANXA1 gene may result in hairy cell leukemia. STJ98699 was affinity-purified from rabbit serum by affinity-chromatography using specific immunogen. This primary antibody detects endogenous Annexin I.

Model	STJ98699
Host	Rabbit
Reactivity	Human
Applications	ELISA, IHC, WB
Immunogen	Synthetic peptide from human Annexin I protein.
Immunogen Region	130-180 aa
Gene ID	301
Gene Symbol	ANXA1
Dilution range	WB 1:500-2000IHC-P 1:50-300ELISA 1:5000-20000
Specificity	The antibody detects endogenous Annexin I.
Tissue Specificity	Detected in resting neutrophils . Detected in peripheral blood T-cells . Detected in extracellular vesicles in blood serum from patients with

inflammatory bowel disease, but not in serum from healthy donors . Detected in placenta (at protein level) . Detected in liver.

Purification	The antibody was affinity-purified from rabbit serum by affinity-chromatography using specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Annexin A1 Annexin I Annexin-1 Calpactin II Calpactin-2 Chromobindin-9 Lipocortin I Phospholipase A2 inhibitory protein p35
Molecular Weight	38kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	PBS, pH 7.4, containing 0.02% sodium azide as Preservative and 50% Glycerol.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:533OMIM:151690
Alternative Names	Annexin A1 Annexin I Annexin-1 Calpactin II Calpactin-2 Chromobindin-9 Lipocortin I Phospholipase A2 inhibitory protein p35
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 . Plays a role in glucocorticoid-mediated down-regulation of the early phase of the inflammatory response . Promotes resolution of inflammation and wound healing . Functions at least in part by activating the formyl peptide receptors and downstream signaling cascades . Promotes chemotaxis of granulocytes and monocytes via activation of the formyl peptide receptors . 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 . Promotes the differentiation of T-cells into Th1 cells and negatively regulates differentiation into Th2 cells . Has no effect on unstimulated T cells . Promotes rearrangement of the actin cytoskeleton, cell polarization and cell migration . Negatively regulates hormone exocytosis via activation of the formyl peptide receptors and reorganization of the actin cytoskeleton . Has high affinity for Ca(2+) and can bind up to eight Ca(2+) ions . Displays Ca(2+)-dependent binding to phospholipid membranes . 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 .
Sequence and Domain Family	The full-length protein can bind eight Ca(2+) ions via the annexin repeats. Calcium binding causes a major conformation change that modifies dimer contacts and leads to surface exposure of the N-terminal phosphorylation sites; in the absence of Ca(2+), these sites are buried in the interior of the protein core. The N-terminal region becomes disordered in response to calcium-binding. The N-terminal 26 amino acids are sufficient for its extracellular functions in the regulation of inflammation and wound healing .

Acylated peptides that contain the first 26 amino acids of the mature protein can activate signaling via the formyl peptide receptors .

Cellular Localization

Nucleus Cytoplasm Cell projection, cilium Cell membrane Membrane Endosome membrane Basolateral cell membrane Apical cell membrane Lateral cell membrane Secreted Secreted, extracellular space Cell membrane Secreted, exosome Cytoplasmic vesicle, secretory vesicle lumen Cell projection, phagocytic cup Early endosome Cytoplasmic vesicle membrane. Secreted, at least in part via exosomes and other secretory vesicles. Detected in exosomes and other extracellular vesicles . Detected in gelatinase granules in resting neutrophils . Secretion is increased in response to wounding and inflammation . Secretion is increased upon T-cell activation . Neutrophil adhesion to endothelial cells stimulates secretion via gelatinase granules, but foreign particle phagocytosis has no effect . Colocalizes with actin fibers at phagocytic cups . Displays calcium-dependent binding to phospholipid membranes .

Post-translational Modifications

Phosphorylated by protein kinase C, EGFR and TRPM7 . Phosphorylated in response to EGF treatment . Sumoylated.