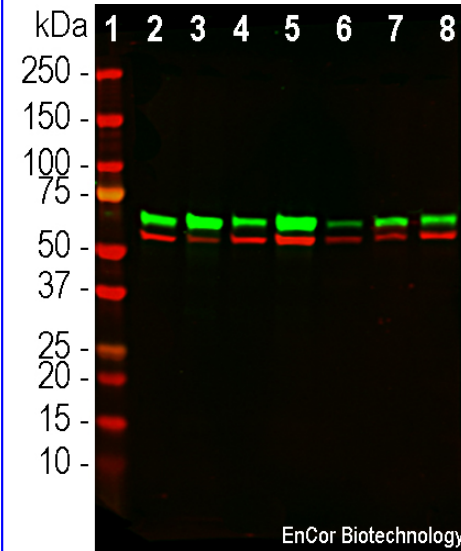


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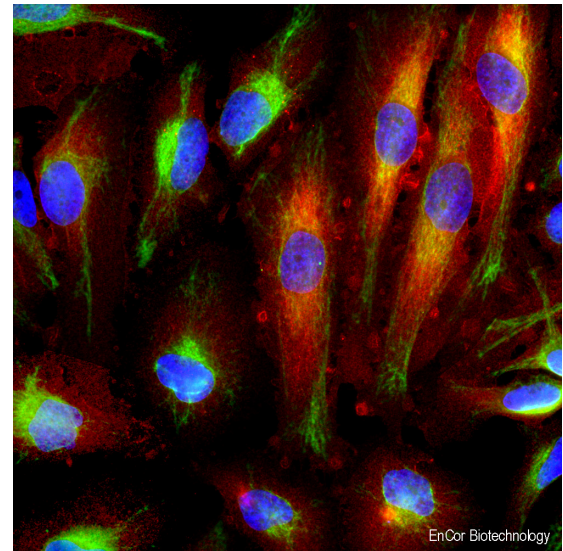
**HGNC Name:** ANXA6  
**UniProt:** P08133  
**RRID:** AB\_2923497  
**Immunogen:** Recombinant full length annexin A6 expressed in and purified from *E. coli*  
**Format:** Purified antibody at 1mg/mL in 50% PBS, 50% glycerol plus 5mM Na<sub>2</sub>S<sub>2</sub>O<sub>5</sub>  
**Storage:** Shipped on ice. Store at 4°C for short term, for longer term at -20°C. Avoid freeze / thaw cycles.  
**Recommended dilutions:**  
 WB: 1:1,000-1:2,000. ICC/IF: 1:1,000. IHC not recommended

- References:**
- Gerke V, and Moss SE. Annexins: from structure to function. *Physiol Revs* 82:331-71 (2002).
  - Barton GJ, et al. Amino acid sequence analysis of the annexin super-gene family of proteins. *Eur J Biochem* 198:749-60 (1991).
  - Geisow MJ, et al. A consensus amino-acid sequence repeat in *Torpedo* and mammalian Ca<sup>2+</sup>-dependent membrane-binding proteins. *Nature* 320:636-8 (1986).
  - Crompton MR et al. Primary structure of the human, membrane-associated Ca<sup>2+</sup>-binding protein p68: a novel member of a protein family. *EMBO J* 7:21-27 (1988).
  - Suedhof TC et al. Human 67-kDa calelectrin contains a duplication of four repeats found in 35-kDa lipocortins. *PNAS* 85:664-668 (1988).
  - Boye TL et al. Annexin A4 and A6 induce membrane curvature and constriction during cell membrane repair. *Nature Comm* 8:1623 (2017).

Applications	Host	Isotype	Molecular Wt.	Species Cross-Reactivity
WB, ICC/IF	Mouse	IgG1	75kDa, ~68kDa by SDS-PAGE	Hu, Rt, Ms, Do, Ho, Mo



Western blot analysis of different cell lysates using mouse mAb to annexin A6, MCA-4G3, dilution 1:2,000 in green: [1] protein standard (red), [2] mouse NIH-3T3, [3] rat C6, [4] human HeLa, [5] human HEK293, [6] dog A72, [7] equine NBL6 and [8] African green monkey COS1 cells. MCA-4G3 antibody detects annexin A6 protein with apparent MW of about 68kDa in all cell preparations. The blot was simultaneously probed with rabbit pAb to RPCA-HSP60, dilution 1:5,000, in red. The band at 60kDa corresponds to HSP60 protein.



Immunofluorescent analysis of HeLa cells stained with mouse mAb to annexin A6, MCA-4G3, dilution 1:500 in red, and costained with chicken pAb to vimentin, CPCA-Vim, dilution 1:2,000 in green. The blue is Hoechst staining of nuclear DNA. The annexin A6 antibody detects protein predominantly expressed in spherical cellular membrane protrusions, known as blebs, while the vimentin antibody produces strong staining of the intermediate filament network of the cytoskeleton.

### Background:

The annexins are a large family of related proteins which share the property of binding to phospholipid containing membranes in a Calcium dependent manner (1). Different members of the family were discovered by different laboratories and as a result the various members have many alternate names, such as lipocortin, calpactin, calelectrin and very many others. In fact Annexin A6 has a particularly surprising number of alternate names, 19 being listed on the [Genecards ANXA6](http://Genecards.org) site. The widely used current nomenclature is now based on a letter to indicate membership in a particular one of several annexin sub-families and a number for individual gene products, hence the name annexin A6. The annexin family is defined by a compact disc structure formed from 16 closely packed  $\alpha$ -helices which co-ordinate multiple Calcium ions with phospholipid containing membranes. This domain is defined by 4 imperfect repeats of a ~77 amino acid sequence, each repeat forming 4  $\alpha$ -helices (2,3). Annexin A6 was first cloned and sequenced as p68, as a Calcium dependent membrane binding protein extracted from B lymphoblastoid cells (4) and independently as the human homolog of calelectrin, a protein isolated from the electric organ of the fish *Torpedo* (5). The annexin A6 protein sequence was found to be 75kDa in molecular size, about twice the size of most other annexin family members, and proved to have two of the 16  $\alpha$ -helical regions apparently generated by duplication of the annexin core. The protein has frequently been reported to run on SDS-PAGE more rapidly than expected from the expected 75kDa, at ~68kDa, likely related to the high content of negatively charged amino acids (5). Annexin A6 is normally localized in the cytosol but becomes membrane associated following cellular injury, and so is often seen in "RPCA-ANXA6".

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### Abbreviation Key:

mAb—Monoclonal Antibody pAb—Polyclonal Antibody WB—Western Blot IF—Immunofluorescence ICC—Immunocytochemistry  
 IHC—Immunohistochemistry E—ELISA Hu—Human Mo—Monkey Do—Dog Rt—Rat Ms—Mouse Co—Cow Pi—Pig Ho—Horse Ch—Chicken  
 Dr—D. rerio Dm—D. melanogaster Sm—S. mutans Ce—C. elegans Sc—S. cerevisiae Sa—S. aureus Ec—E. coli.