

nCor Annexin A5 **Rabbit Polyclonal Antibody**

RPCA-ANXA5

Species Cross-Reactivity

Ordering Information Web www.encorbio.com Email admin@encorbio.com Phone 352-372-7022 Fax 352-372-7066

HGNC Name: ANXA5 UniProt: P08758 RRID: AB 2861176 Immunogen: Full length human recombinant annexin

A5 expressed in and purified from E. coli. Format: Affinity purified antibody at 1mg/mL in 50% PBS, 50% glycerol plus 5mM NaN₃ Storage: Store at 4°C for short term, for longer term

store at -20°C Recommended dilutions:

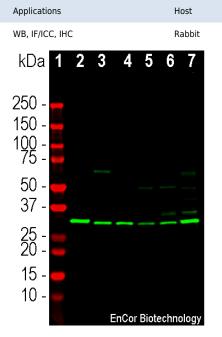
WB: 1:10,000-20,000. IF/ICC 1:2,000-5,000, IHC: 1:5,000

References:

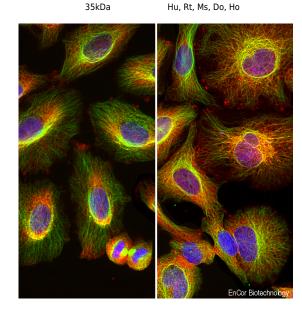
1. Gerke V, and Moss SE. Annexins: from structure to function. Physiol Revs 82:331-71 (2002)

2. Barton GI, et al. Amino acid sequence analysis of the annexin super-gene family of proteins. Eur J Biochem 198:749-60 (1991). 3. Geisow MJ. et al. A consensus amino-acid sequence repeat in Torpedo and mammalian Ca2+-dependent membrane-binding proteins. Nature 320:636-8 (1986).

4. Koopman G. et al. Annexin V for Flow Cytometric Detection of Phosphatidylserine Expression on B Cells Undergoing Apoptosis. Blood 84:1415-1420 (1984).



Western blot analysis of different cell lines lysates using rabbit pAB to annexin A5, RPCA-ANXA5, dilution 1:10,000 in green: [1] protein standard (red), [2] mouse NIH-3T3, [3] rat C6, [4] human HeLa, [5] human HEK293, [6] canine A72, and [7] equine NBL6. Strong band at about 35kDa corresponds to annexin A5 protein, detected in all cell preparations.



Molecular Wt

Immunofluorescent analysis of HeLa cells stained with rabbit pAb to annexin A5, RPCA-ANXA5, dilution 1:3,000 in red, and costained with mouse mAb to β -tubulin, MCA-4E4, dilution 1:5,000 in green. The blue is Hoechst staining of nuclear DNA. Left: Hela cells grown under normal conditions. Right: HeLa cells treated with 15mM Pentoxifyline for 24 hours. Annexin A5 is membrane associated and concentrated in blebs, and Pentoxifyline activates apoptosis and upregulates Annexin A5 expression.

The annexing are a large family of related proteing which share the property of binding to phophospholipid 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 others. In fact Annexin A5 has a particularly surprising number of alternate names, 20 being listed on the Genecards ANXA5 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 A5. The annexin family is defined by a compact disc structure formed from 16 closely packed α -helices which coordinate 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 α-helices (2,3). Annexin A5 is expressed widely in tissues and has been used as a marker of apoptosis, as apoptotic cells may express binding sites for this protein on their cell surface. The protein binds to phosphatidylserine, a membrane lipid normally not found on the external surface of cells which becomes expressed on the cell surface during apoptosis. As a result fluorescent annexin A5 or annexin A5 antibody can be used to isolate apoptotic cells by fluorescence activated cell sorting (4).

Isotype

The RPCA-ANXA5 antibody was made against full length recombinant human annexin A5 expressed in and purified from E. coli. The antibody recognizes annexin A5 in in human, rodents and many other mammals by western blotting IF, ICC and IHC. We also market a mouse monoclonal antibody to annexin A5 which has a more restricted cross-species reactivity, binding annexin A5 in human and monkey, but not other mammalian species MCA-6A12.

FOR RESEARCH USE ONLY. NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE.

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.