

**#3666** Store at -20°C

# Annexin A7 Antibody


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<b>Applications:</b> WB	<b>Reactivity:</b> H Mk	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 47, 51	<b>Source:</b> Rabbit	<b>UniProt ID:</b> #P20073	<b>Entrez-Gene Id:</b> 310
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<b>Product Usage Information</b>	<b>Application</b> Western Blotting  <b>Dilution</b> 1:1000
<b>Storage</b>	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.
<b>Specificity / Sensitivity</b>	Annexin A7 Antibody detects endogenous levels of total annexin A7 protein, including isoforms 1 and 2.
<b>Source / Purification</b>	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human annexin A7. Antibodies are purified using protein A and peptide affinity chromatography.
<b>Background</b>	Annexin A7/ANXA7 is a member of the annexin family of calcium/phospholipid-binding proteins, and is involved in the process of membrane fusion and exocytosis (1). Annexin A7 is a GTPase, and both GTP-binding and PKC activity are important in regulating protein function (2,3). Membrane binding of annexin A7 is calcium dependent (4). Two isoforms exist due to alternative splicing. Subcellular localization of annexin A7 has been shown to be in the cytoplasm, vesicular structures, membrane and in adrenal chromaffin granules (5,6). Nuclear localization has been shown in the developing mouse central nervous system as well as in adult mouse brain (7). Annexin A7-deficient mouse studies show that the protein has a role in insulin secretion and calcium signaling (8) as well as cardiac intracellular calcium homeostasis electrical stability (9). The gene for annexin A7 is a putative tumor suppressor (10), and alterations in the copy number have been reported in prostate cancer (11). Annexin A7 expression has also been correlated with survival in human glioblastoma patients (12), and haploinsufficiency in mice may promote genetic instability leading to tumorigenesis (13).
<b>Background References</b>	1. Pollard, H.B. et al. (1990) <i>J Membr Biol</i> 117, 101-12. 2. Caohuy, H. and Pollard, H.B. (2002) <i>J Biol Chem</i> 277, 25217-25. 3. Caohuy, H. et al. (1996) <i>Proc Natl Acad Sci USA</i> 93, 10797-802. 4. Chander, A. et al. (2003) <i>Cell Calcium</i> 33, 11-7. 5. Selbert, S. et al. (1995) <i>J Cell Sci</i> 108 ( Pt 1), 85-95. 6. Clemen, C.S. et al. (2001) <i>Neuroreport</i> 12, 1139-44. 7. Rick, M. et al. (2005) <i>BMC Neurosci</i> 6, 25. 8. Srivastava, M. et al. (1999) <i>Proc Natl Acad Sci USA</i> 96, 13783-8. 9. Schrickel, J.W. et al. (2007) <i>Cardiovasc Res</i> 76, 257-68. 10. Srivastava, M. et al. (2001) <i>Proc Natl Acad Sci USA</i> 98, 4575-80. 11. Dong, J.T. (2006) <i>J Cell Biochem</i> 97, 433-47. 12. Hung, K.S. and Howng, S.L. (2003) <i>J Neurosurg</i> 99, 886-92. 13. Srivastava, M. et al. (2003) <i>Proc Natl Acad Sci USA</i> 100, 14287-92.

<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
<b>Western Blot Buffer</b>	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
<b>Applications Key</b>	<b>WB:</b> Western Blotting
<b>Cross-Reactivity Key</b>	<b>H:</b> human <b>M:</b> mouse <b>R:</b> rat <b>Hm:</b> hamster <b>Mk:</b> monkey <b>Vir:</b> virus <b>Mi:</b> mink <b>C:</b> chicken <b>Dm:</b> D. melanogaster <b>X:</b> Xenopus <b>Z:</b> zebrafish <b>B:</b> bovine <b>Dg:</b> dog <b>Pg:</b> pig <b>Sc:</b> S. cerevisiae <b>Ce:</b> C. elegans <b>Hr:</b> horse <b>GP:</b> Guinea Pig <b>Rab:</b> rabbit <b>All:</b> all species expected

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