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Annexin A2 (D11G2) Rabbit mAb (PE Conjugate)



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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: FC-FP	Reactivity: H M R Mk B Pg	Sensitivity: Endogenous	Source/Isotype: Rabbit IgG	UniProt ID: #P07355	Entrez-Gene Id: 302
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Product Usage Information	Application Flow Cytometry (Fixed/Permeabilized)	Dilution 1:50
Storage	Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibodies. Protect from light. Do not freeze.	
Specificity / Sensitivity	Annexin A2 (D11G2) Rabbit mAb (PE Conjugate) recognizes endogenous levels of total annexin A2 protein. This antibody is not known or predicted to cross-react with other annexin family members.	
Species predicted to react based on 100% sequence homology:	Dog, Horse	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Phe307 of human annexin A2 protein.	
Product Description	This Cell Signaling Technology antibody is conjugated to phycoerythrin (PE) and tested in-house for direct flow cytometry analysis in human cells. This antibody is expected to exhibit the same species cross-reactivity as the unconjugated Annexin A2 (D11G2) Rabbit mAb #8235.	
Background	Annexin A2 (ANXA2), also known as lipocortin II or calpactin-1 heavy chain, is a 36 kDa member of the annexin superfamily that binds phospholipids and other proteins in a calcium-dependent manner via annexin repeats (1). Annexin A2 contains four such repeats through which it mediates protein-protein and protein-lipid interactions (1-4). It forms a constitutive heterotetramer with S100A10, acting as a bridge between the actin cytoskeleton, plasma membrane, and endocytotic vesicle machinery (5-7). Originally identified as a protein inhibitor of phospholipase A2, annexin A2 has subsequently been shown to interact with an array of protein and non-protein partners, including F-actin, spectrin, SNARE complexes, RNA, and virus particles (4,6,8,9). Annexin A2 has also been shown to have receptor-like activity and is detected on the surface of macrophages and vascular endothelial cells where it mediates macrophage activation and Factor Xa signaling, respectively (10-13). Upregulation of annexin A2 at the cell surface is thought to be modulated by phosphorylation at Tyr23 by Src (14-18). Interestingly, phosphorylation at Tyr23 has recently been shown to be required for cell surface expression of annexin A2 where it mediates motility, invasiveness, and overall metastatic potential of certain pancreatic cancer cells (19,20). Annexin A2 has also been shown to be heavily phosphorylated on serine residues in response to PKC activation via a pleiotropic mechanism (21-23). For a complete list of curated phosphorylation sites on annexin A2, please see PhosphoSitePlus® at www.phosphosite.org.	
Background References	1. Barton, G.J. et al. (1991) <i>Eur J Biochem</i> 198, 749-60. 2. Gerke, V. and Weber, K. (1985) <i>EMBO J</i> 4, 2917-20. 3. Glenney, J.R. and Tack, B.F. (1985) <i>Proc Natl Acad Sci USA</i> 82, 7884-8. 4. Gerke, V. and Weber, K. (1984) <i>EMBO J</i> 3, 227-33. 5. Illien, F. et al. (2010) <i>Biochim Biophys Acta</i> 1798, 1790-6. 6. Umbrecht-Jenck, E. et al. (2010) <i>Traffic</i> 11, 958-71. 7. Jung, M.J. et al. (2010) <i>Exp Cell Res</i> 316, 1234-40. 8. Filipenko, N.R. et al. (2004) <i>J Biol Chem</i> 279, 8723-31. 9. Wright, J.F. et al. (1994) <i>Biochem Biophys Res Commun</i> 198, 983-9. 10. Bhattacharjee, G. et al. (2008) <i>Circ Res</i> 102, 457-64. 11. Pizzo, S.V. (2008) <i>Circ Res</i> 102, 389-91. 12. Swisher, J.F. et al. (2007) <i>J Leukoc Biol</i> 82, 1174-84. 13. Deora, A.B. et al. (2004) <i>J Biol Chem</i> 279, 43411-8.	

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Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Applications Key

FC-FP: Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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