

Store at
-20C
#60940**Astrin/SPAG5 Antibody**

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H Mk	Endogenous	135, 150	Rabbit	#Q96R06	10615
Product Usage Information	Application					Dilution
	Western Blotting					1:1000
	Immunoprecipitation					1:50
Storage	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.					
Specificity/Sensitivity	Astrin/SPAG5 Antibody recognizes endogenous levels of total Astrin/SPAG5 protein.					
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val185 of human Astrin/SPAG5 protein. Antibodies are purified by protein A and peptide affinity chromatography.					
Background	Astrin/SPAG5 was identified as a microtubule-associated protein in a mitotic extract (1). It is essential for cells to assemble bipolar spindle structures and progress through mitosis (1, 2). Astrin/SPAG5 was also identified to be a component associated with outer dense fibers in the sperm tail (3). In addition, this protein negatively regulates mTORC1 activity during the cell stress response (4). Under stress conditions, Astrin/SPAG5 interacts with the mTORC1 component raptor and recruits raptor to stress granules, thereby suppressing mTORC1 formation (4). The inhibition of mTORC1 prevents its hyperactivation and thus keeps cells from undergoing apoptosis during stresses (4). Furthermore, Astrin/SPAG5 has been implicated to be a prognostic marker in breast cancer (5).					
Background References	<ol style="list-style-type: none"> 1. Mack, G.J. and Compton, D.A. (2001) <i>Proc Natl Acad Sci U S A</i> 98, 14434-9. 2. Gruber, J. et al. (2002) <i>J Cell Sci</i> 115, 4053-9. 3. Xue, J. et al. (2002) <i>Mol Cell Biol</i> 22, 1993-7. 4. Thedieck, K. et al. (2013) <i>Cell</i> 154, 859-74. 5. Abdel-Fatah, T.M. et al. (2016) <i>Lancet Oncol</i> 17, 1004-18. 					

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Western Blot Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
Applications Key	W: Western Blotting IP: Immunoprecipitation
Cross-Reactivity Key	H: Human Mk: Monkey
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