

#54037 Store at -20C

C17orf59 (D2B5X) Rabbit mAb**Cell Signaling**
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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB	H Mk	Endogenous	42	Rabbit IgG	#Q96GS4	54785

Product Usage Information	Application Western Blotting	Dilution 1:1000
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.	
Specificity / Sensitivity	C17orf59 (D2B5X) Rabbit mAb recognizes endogenous levels of total C17orf59 protein.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Glu270 of human C17orf59 protein.	
Background	mTORC1 kinase complex is a critical component to regulate cell growth in response to energy levels, growth factors, and amino acids (1-4). The GTPases RagA, RagB, RagC and RagD have been shown to interact with raptor in mTORC1 (3,4). A Regulator complex, consisting of LAMTOR1/C11orf59, LAMTOR2/ROBLD3, LAMTOR3/MAPKSP1, LAMTOR4/C7orf59 and LAMTOR5/HBXIP, associates with the Rag GTPases and recruit them to the surface of lysosomes (5, 6). These interactions lead to mTORC1 activation in response to amino acid signals (3-6). In addition, C17orf59 was shown to interact with Regulator and disrupt the interaction between Regulator and Rag GTPases (7). This disruption prevents mTOR from localizing to the lysosomal membrane and therefore inhibits mTORC1 activation (7).	
Background References	<ol style="list-style-type: none"> Hay, N. and Sonenberg, N. (2004) <i>Genes Dev</i> 18, 1926-45. Wullschleger, S. et al. (2006) <i>Cell</i> 124, 471-84. Sancak, Y. et al. (2008) <i>Science</i> 320, 1496-501. Kim, E. et al. (2008) <i>Nat Cell Biol</i> 10, 935-45. Sancak, Y. et al. (2010) <i>Cell</i> 141, 290-303. Bar-Peled, L. et al. (2012) <i>Cell</i> 150, 1196-208. Schweitzer, L.D. et al. (2015) <i>Cell Rep</i> 12, 1445-55. 	

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	WB: Western Blotting
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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