

**C17orf59 (D2B5X) Rabbit mAb**

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	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 Ragulator 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 Ragulator and disrupt the interaction between Ragulator and Rag GTPases (7). This disruption prevents mTOR from localizing to the lysosomal membrane and therefore inhibits mTORC1 activation (7).

**Background References**

- Hay, N. and Sonenberg, N. (2004) *Genes Dev* 18, 1926-45.
- Wullschleger, S. et al. (2006) *Cell* 124, 471-84.
- Sancak, Y. et al. (2008) *Science* 320, 1496-501.
- Kim, E. et al. (2008) *Nat Cell Biol* 10, 935-45.
- Sancak, Y. et al. (2010) *Cell* 141, 290-303.
- Bar-Peled, L. et al. (2012) *Cell* 150, 1196-208.
- Schweitzer, L.D. et al. (2015) *Cell Rep* 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**

**W:** Western Blotting

**Cross-Reactivity Key**

**H:** Human **Mk:** Monkey

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