

#53385 Store at -20°C

WDR59 (D4Z7A) Rabbit mAb**Cell Signaling**
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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H Mk	Endogenous	110	Rabbit IgG	#Q6PJI9	79726

Product Usage Information**Application**Western Blotting
Immunoprecipitation**Dilution**1:1000
1:50**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

WDR59 (D4Z7A) rabbit mAb recognizes endogenous levels of total WDR59 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding His356 of human WDR59 protein.

Background

The mTORC1 kinase complex plays a critical role in cell growth regulation (1, 2). mTORC1 activity is modulated by cellular environmental factors (e.g., energy levels, growth factors, amino acids) (3, 4), which are mediated through a protein complex known as GATOR (GAP Activity Towards Rags) (5). GATOR is comprised of two protein subcomplexes (GATOR1 and GATOR2), that function in opposing fashion to regulate mTORC1 activity (5). WDR59 was identified as a component of the GATOR2 subcomplex (also containing Mios, WDR24, Seh1L and Sec13), that functions to positively regulate mTORC1 activity (5). Conversely, the GATOR1 subcomplex (containing DEPDC5, Nprl2 and Nprl3), negatively regulates mTORC1 activity, through activation of RagA and RagB GTPases (5).

Background References

1. Sancak, Y. et al. (2008) *Science* 320, 1496-501.
2. Kim, E. et al. (2008) *Nat Cell Biol* 10, 935-45.
3. Hay, N. and Sonenberg, N. (2004) *Genes Dev* 18, 1926-45.
4. Wullschleger, S. et al. (2006) *Cell* 124, 471-84.
5. Bar-Peled, L. et al. (2013) *Science* 340, 1100-6.

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 **IP:** Immunoprecipitation**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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