

MO25α/CAB39 (C49D8) Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H M R Mk	Endogenous	39	Rabbit IgG	#Q9Y376	51719

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

MO25α/CAB39 (C49D8) Rabbit mAb detects endogenous levels of total MO25α/CAB39 and MO25β/CAB39L proteins.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to the sequence of human MO25α/CAB39.

Background

AMPK (AMP-activated protein kinase) is a key cellular component that regulates energy homeostasis (1,2). When the AMP/ATP ratio is increased due to energy depletion, AMPK is phosphorylated at its α1 and α2 catalytic subunits and activated (3). Studies showed that the tumor suppressor LKB1 phosphorylates and activates AMPK in mammals (4,5). MO25α (mouse protein 25α), also called CAB39 (calcium binding protein 39), is a component of the LKB1 complex *in vivo* (5,6). MO25α/CAB39 does not directly interact with LKB1; instead, it is physically associated with STRADα (6). Together MO25α/CAB39 and STRADα help anchor LKB1 in the cytoplasm (6). MO25α/CAB39 stabilizes the LKB1-STRADα complex and further increases the catalytic activity of LKB1 (6).

Background References

1. Hardie, D.G. et al. (2003) *FEBS Lett* 546, 113-20.
2. Hardie, D.G. (2004) *J Cell Sci* 117, 5479-87.
3. Lizcano, J.M. et al. (2004) *EMBO J* 23, 833-43.
4. Woods, A. et al. (2003) *Curr Biol* 13, 2004-8.
5. Hawley, S.A. et al. (2003) *J Biol* 2, 28.
6. Boudeau, J. et al. (2003) *EMBO J* 22, 5102-14.

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 BSA, 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 **M:** Mouse **R:** Rat **Mk:** Monkey

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