

TBC1D1 (D2Y8M) Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	M	Endogenous	160	Rabbit IgG	#Q60949	57915

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

TBC1D1 (D2Y8M) Rabbit mAb recognizes endogenous levels of total TBC1D1 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val796 of mouse TBC1D1 protein.

Background

TBC1D1 is a paralog of AS160 (1) and both proteins share about 50% identity (2). TBC1D1 was shown to be a candidate gene for severe obesity (3). It plays a role in Glut4 translocation through its GAP activity (2,4). Studies indicate that TBC1D1 is highly expressed in skeletal muscle (1). Insulin, AICAR, and contraction directly regulate TBC1D1 phosphorylation in this tissue (1). Three AMPK phosphorylation sites (Ser231, Ser660, and Ser700) and one Akt phosphorylation site (Thr590) were identified in skeletal muscle (5). Muscle contraction or AICAR treatment increases phosphorylation on Ser231, Ser660, and Ser700 but not on Thr590; insulin increases phosphorylation on Thr590 only (5).

Background References

1. Taylor, E.B. et al. (2008) *J Biol Chem* 283, 9787-96.
2. Roach, W.G. et al. (2007) *Biochem J* 403, 353-8.
3. Stone, S. et al. (2006) *Hum Mol Genet* 15, 2709-20.
4. Chavez, J.A. et al. (2008) *J Biol Chem* 283, 9187-95.
5. Vichaiwong, K. et al. (2010) *Biochem J* 431, 311-20.

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

M: Mouse

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