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Store at -20C
#6927

Phospho-TBC1D1 (Thr590) Antibody

For Research Use Only. Not for Use in Diagnostic Procedures.

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

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 and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Phospho-TBC1D1 (Thr590) Antibody recognizes transfected levels of TBC1D1 protein only when phosphorylated at Thr590.

Species predicted to react based on 100% sequence homology

Rat

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Thr590 of mouse TBC1D1 protein. Antibodies are purified by protein A and peptide affinity chromatography.

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 BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

M: Mouse

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