

Phospho-TBC1D1 (Ser660) Antibody



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For Research Use Only. Not For Use In Diagnostic Procedures.

| Applications W Transfected | Species Cross-Reactivity* M, (R) | Molecular Wt. 160 kDa | Source Rabbit** |
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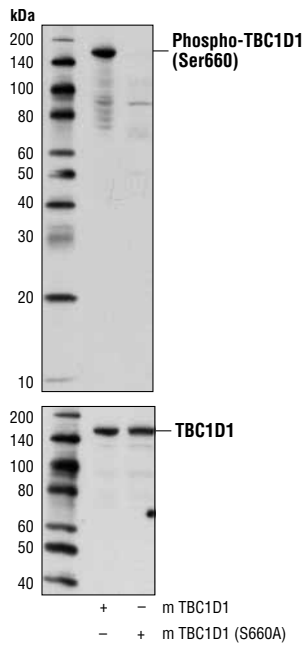
Background: TBC1D1 is a paralog of AS160 (1) and both proteins share about 50% identity (2). TBC1D1 was shown to be a candidate gene for severe obesity (3). It plays a role in Glut4 translocation through its GAP activity (2,4). More recently, studies indicate that TBC1D1 is highly expressed in skeletal 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 (5). Muscle contraction or AICAR treatment increases phosphorylation on Ser231, Ser660, and Ser700 but not on Thr590; insulin increases phosphorylation on Thr590 only (5).

Specificity/Sensitivity: Phospho-TBC1D1 (Ser660) Antibody recognizes transfected levels of TBC1D1 protein only when phosphorylated at Ser660.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ser660 of mouse TBC1D1 protein. Antibodies are purified by protein A and peptide affinity chromatography.

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.



Western blot analysis of extracts from 293T cells, transfected with either mouse wild-type TBC1D1 or mutant TBC1D1 (S660A), using Phospho-TBC1D1 (Ser660) Antibody (upper) or TBC1D1 (G689) Antibody #5929 (lower). Both expression vectors were kindly provided by Dr. Laurie Goodyear at the Joslin Diabetes Center.

Entrez-Gene ID #57915
Swiss-Prot Acc. #Q60949

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.

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting 1:1000

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.