

TBC1D1 (G689) Antibody

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

Applications: W, IP	Reactivity: M	Sensitivity: Endogenous	MW (kDa): 160	Source/Isotype: Rabbit	UniProt ID: #Q86TI0	Entrez-Gene Id: 23216
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 and 50% glycerol. Store at -20°C. Do not aliquot the antibody.					
Specificity/Sensitivity	TBC1D1 (G689) Antibody detects endogenous levels of total TBC1D1 protein.					
Species predicted to react based on 100% sequence homology	Human					
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the sequence around Gly 689 of human TBC1D1. 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) <i>J Biol Chem</i> 283, 9787-96. 2. Roach, W.G. et al. (2007) <i>Biochem J</i> 403, 353-8. 3. Stone, S. et al. (2006) <i>Hum Mol Genet</i> 15, 2709-20. 4. Chavez, J.A. et al. (2008) <i>J Biol Chem</i> 283, 9187-95. 5. Vichaiwong, K. et al. (2010) <i>Biochem J</i> 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 IP: Immunoprecipitation
Cross-Reactivity Key	M: Mouse
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