

Mitofusin-1 Antibody



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

Applications: W	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 82	Source/Isotype: Rabbit	UniProt ID: #Q8IWA4	Entrez-Gene Id: 55669
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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	Mitofusin-1 Antibody recognizes endogenous levels of total mitofusin-1 protein.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human mitofusin-1 protein. Antibodies are purified by protein A and peptide affinity chromatography.	
Background	Mitofusins are mitochondrial transmembrane GTPases that function to regulate mitochondrial fusion, a process that occurs in concert with mitochondrial division and is necessary for the maintenance of structural and genetic mitochondrial integrity (1,2). Two mitofusins have been described in mammals, mitofusin-1 and -2, which share 60% amino acid identity and appear to function coordinately to regulate mitochondrial fusion (3). Mitochondrial fusion is widely recognized as important for normal cell growth and development (4), and may have evolved as a mechanism to offset the deleterious effects of mtDNA mutations (3). Null mutations in either mitofusin are embryonic lethal in mice, whereas conditional knockout studies have shown that combined deletion of mitofusin-1 and mitofusin-2 in skeletal muscle results in severe mitochondrial dysfunction (3).	
Background References	<ol style="list-style-type: none"> Zhang, Y. and Chan, D.C. (2007) <i>FEBS Lett</i> 581, 2168-73. Chan, D.C. (2006) <i>Annu Rev Cell Dev Biol</i> 22, 79-99. Chen, H. et al. (2010) <i>Cell</i> 141, 280-9. Bereiter-Hahn, J. and Vöth, M. (1994) <i>Microsc Res Tech</i> 27, 198-219. 	

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	H: Human
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