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MFN2 Antibody (monoclonal) (M03)

Mouse monoclonal antibody raised against a partial recombinant MFN2.
Catalog # AT2852a

Product Information

Application	WB, IHC, E
Primary Accession	O95140
Other Accession	NM_014874
Reactivity	Human, Rat
Host	mouse
Clonality	monoclonal
Isotype	IgG2a Kappa
Clone Names	4H8
Calculated MW	86402

Additional Information

Gene ID	9927
Other Names	Mitofusin-2, 365-, Transmembrane GTPase MFN2, MFN2, CPRP1, KIAA0214
Target/Specificity	MFN2 (NP_055689, 661 a.a. ~ 757 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 IHC~~1:100~500 E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	MFN2 Antibody (monoclonal) (M03) is for research use only and not for use in diagnostic or therapeutic procedures.

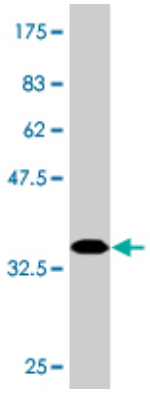
Background

This gene encodes a mitochondrial membrane protein that participates in mitochondrial fusion and contributes to the maintenance and operation of the mitochondrial network. This protein is involved in the regulation of vascular smooth muscle cell proliferation, and it may play a role in the pathophysiology of obesity. Mutations in this gene cause Charcot-Marie-Tooth disease type 2A2, and hereditary motor and sensory neuropathy VI, which are both disorders of the peripheral nervous system. Defects in this gene have also been associated with early-onset stroke. Two transcript variants encoding the same protein have been identified.

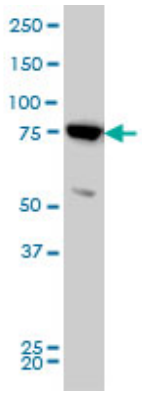
References

1.Exercise training can induce cardiac autophagy at end-stage chronic conditions: Insights from a graft-versus-host-disease mouse model.Fiuza-Luces C, Delmiro A, Soares-Miranda L, Gonzalez-Murillo A, Martinez-Palacios J, Ramirez M, Lucia A, Moran MBrain Behav Immun. 2013 Nov 14. pii: S0889-1591(13)00538-2. doi: 10.1016/j.bbi.2013.11.007.2.Regulation of miRNAs in human skeletal muscle following acute endurance exercise and short term endurance training.Russell AP, Lamon S, Boon H, Wada S, Guller I, Brown EL, Chibalin AV, Zierath J, Snow RJ, Stepto NK, Wadley GD, Akimoto TJ Physiol. 2013 Jun 24.3.Over-expressing mitofusin-2 in healthy mature Mammalian skeletal muscle does not alter mitochondrial bioenergetics.Lally JS, Herbst EA, Matravadia S, Maher AC, Perry CG, Ventura-Clapier R, Holloway GPPLoS One. 2013;8(1):e55660. doi: 10.1371/journal.pone.0055660. Epub 2013 Jan 31.4.Mitofusin-2 independent juxtaposition of endoplasmic reticulum and mitochondria: an ultrastructural study.Cosson P, Marchetti A, Ravazzola M, Orci L.PLoS One. 2012;7(9):e46293. doi: 10.1371/journal.pone.0046293. Epub 2012 Sep 28.5.Mitochondrial bioenergetics and dynamics interplay in complex i-deficient fibroblasts.Moran M, Rivera H, Sanchez-Arago M, Blazquez A, Merinero B, Ugalde C, Arenas J, Cuezva JM, Martin MA.Biochim Biophys Acta. 2010 May;1802(5):443-453. Epub 2010 Feb 11.6.PGC1{alpha} relationship with skeletal muscle palmitate oxidation is not present with obesity, despite maintained ained PGC1{alpha} and PGC1{beta} protein.Holloway GP, Perry CG, Thrush AB, Heigenhauser GJ, Dyck DJ, Bonen A, Spriet LL.Am J Physiol Endocrinol Metab. 2008 Jun;294(6):E1060-9. Epub 2008 Mar 18.

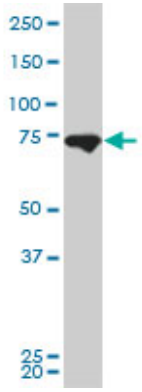
Images



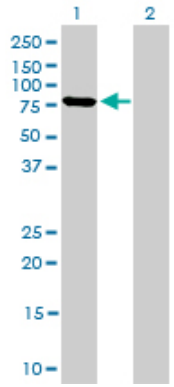
Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (36.41 KDa) .



MFN2 monoclonal antibody (M03), clone 4H8 Western Blot analysis of MFN2 expression in HeLa ((Cat # AT2852a)

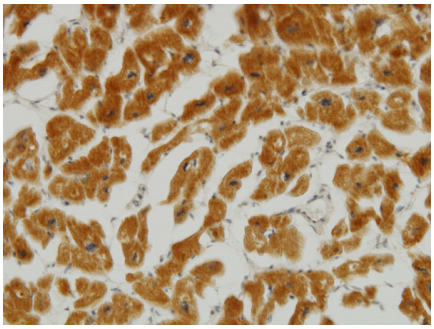


MFN2 monoclonal antibody (M03), clone 4H8. Western Blot analysis of MFN2 expression in PC-12 ((Cat # AT2852a)

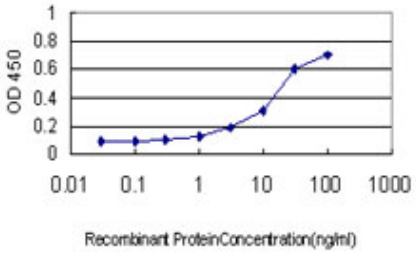


Western Blot analysis of MFN2 expression in transfected 293T cell line by MFN2 monoclonal antibody (M03), clone 4H8.

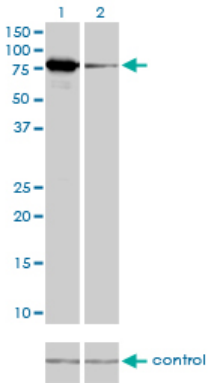
Lane 1: MFN2 transfected lysate(86.4 KDa).
Lane 2: Non-transfected lysate.



Immunoperoxidase of monoclonal antibody to MFN2 on formalin-fixed paraffin-embedded human heart. [antibody concentration 5 ug/ml]



Detection limit for recombinant GST tagged MFN2 is approximately 1ng/ml as a capture antibody.



Western blot analysis of MFN2 over-expressed 293 cell line, cotransfected with MFN2 Validated Chimera RNAi ((Cat # AT2852a)