

Mitofusin-2 (D2D10) Rabbit mAb (HRP Conjugate)

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R Hm Mk	Endogenous	80	Rabbit IgG	#O95140	9927

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

Supplied in 136 mM NaCl, 2.6 mM KCl, 12 mM sodium phosphate (pH 7.4) dibasic, 2 mg/ml BSA, and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Mitofusin-2 (D2D10) Rabbit mAb (HRP Conjugate) recognizes endogenous levels of total mitofusin-2 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val573 of human mitofusin-2 protein.

Description

This Cell Signaling Technology antibody is conjugated to the carbohydrate groups of horseradish peroxidase (HRP) via its amine groups. The HRP conjugated antibody is expected to exhibit the same species cross-reactivity as the unconjugated Mitofusin-2 (D2D10) Rabbit mAb #9482.

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

- Zhang, Y. and Chan, D.C. (2007) *FEBS Lett* 581, 2168-73.
- Chan, D.C. (2006) *Annu Rev Cell Dev Biol* 22, 79-99.
- Chen, H. et al. (2010) *Cell* 141, 280-9.
- Bereiter-Hahn, J. and Vöth, M. (1994) *Microsc Res Tech* 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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Hm:** Hamster **Mk:** Monkey

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