

Merlin (D3S3W) Rabbit mAb (Biotinylated)

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R Hm Mk	Endogenous	70	Rabbit IgG	#P35240	4771

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

Supplied in 140 mM NaCl, 3 mM KCl, 10 mM sodium phosphate (pH 7.4) dibasic, 2 mM potassium phosphate monobasic, 2 mg/mL BSA, and 50% glycerol. Store at -20°C. *Do not aliquot the antibody.*

Specificity/Sensitivity

Merlin (D3S3W) Rabbit mAb (Biotinylated) recognizes endogenous levels of total merlin protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gln470 of human merlin protein.

Description

This Cell Signaling Technology antibody is conjugated to biotin under optimal conditions. The biotinylated antibody is expected to exhibit the same species cross-reactivity as the unconjugated Merlin (D3S3W) Rabbit mAb #12888.

Background

Neurofibromatosis 2 (NF2) is an autosomal dominant, inherited disorder characterized by the occurrence of vestibular schwannomas, meningiomas, and other nervous system tumors. Both the familial tumors of NF2 and equivalent sporadic tumors found in the general population are caused by inactivation of the *NF2* tumor suppressor gene. Merlin (moesin, ezrin, and radixin-like protein) is the *NF2* gene product, displaying striking similarity to ezrin, radixin, and moesin (ERM) proteins. Regulation of merlin (also called schwannomin) and ERM proteins involves intramolecular and intermolecular head-to-tail associations between family members (1). Merlin and ERM proteins act as linkers between the plasma membrane and the cytoskeleton, affecting cell morphology, polarity, and signal transduction (2). Merlin is phosphorylated by the Rac/Cdc42 effector p21-activated kinase (PAK) at Ser518, negatively regulating Rac (3,4).

Background References

1. Ramesh, V. (2004) *Nat. Rev. Neurosci.* 5, 462-70.
2. Bretscher, A. et al. (2002) *Nat. Rev. Mol. Cell Biol.* 3, 586-99.
3. Xiao, G. H. et al. (2002) *J. Biol. Chem.* 277, 883-6.
4. Kissil, J. L. et al. (2003) *Mol. Cell* 12, 841-9.

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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