

Phospho-Merlin (Ser518) (D5A4I) Rabbit mAb**Orders:** 877-616-CELL (2355)
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Applications: W, IP	Reactivity: H M R Mk	Sensitivity: Endogenous	MW (kDa): 70	Source/Isotype: Rabbit IgG	UniProt ID: #P35240	Entrez-Gene Id: 4771
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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, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Phospho-Merlin (Ser518) (D5A4I) Rabbit mAb recognizes endogenous levels of merlin protein only when phosphorylated at Ser518.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ser518 of human merlin protein.

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 BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.**Applications Key****W:** Western Blotting **IP:** Immunoprecipitation**Cross-Reactivity Key****H:** Human **M:** Mouse **R:** Rat **Mk:** Monkey**Trademarks and Patents**

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