

#14136 Store at -20°C

Spinophilin (E1E7R) Rabbit mAb

**Cell Signaling**
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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP, IHC-P, IF-IC	H M R	Endogenous	130	Rabbit IgG	#Q96SB3	84687

Product Usage Information**Application**

Western Blotting
Immunoprecipitation
Immunohistochemistry (Paraffin)
Immunofluorescence (Immunocytochemistry)

Dilution

1:1000
1:50
1:800
1:800

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

Spinophilin (E1E7R) Rabbit mAb recognizes endogenous levels of total spinophilin protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro298 of human spinophilin protein.

Background

Spinophilin is an 815 amino acid protein composed of a PDZ domain, 2 actin-binding domains, a receptor- and PP1-binding domain, three coiled-coiled domains, a potential leucine/isoleucine zipper motif, and three potential SH3 domains (1). Spinophilin interacts with a large number of proteins including ion channel components and G protein-coupled receptors (GPCRs). Spinophilin also interacts with actin filaments; phosphorylation of spinophilin at Ser94 and Ser177 disrupts this interaction (2). Spinophilin has been shown to affect GPCR function through two different mechanisms: spinophilin acts as a functional inhibitor of α-2 adrenergic receptor-mediated arrestin signaling by competing with GRK2 binding to the adrenergic receptor (3) and spinophilin facilitates μ-opioid receptor desensitization by promoting receptor endocytosis (4).

Background References

1. Sarrouilhe, D. et al. (2006) *Biochimie* 88, 1099-113.
2. Hsieh-Wilson, L.C. et al. (2003) *J Biol Chem* 278, 1186-94.
3. Wang, Q. et al. (2004) *Science* 304, 1940-4.
4. Charlton, J.J. et al. (2008) *Neuron* 58, 238-47.

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

WB: Western Blotting **IP:** Immunoprecipitation **IHC-P:** Immunohistochemistry (Paraffin)
IF-IC: Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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