

## Product datasheet

# Anti-Spinophilin/Neurabin 2 antibody ab18561

[2 Abreviews](#) [2 References](#)

### Overview

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<b>Product name</b>	Anti-Spinophilin/Neurabin 2 antibody
<b>Description</b>	Rabbit polyclonal to Spinophilin/Neurabin 2
<b>Host species</b>	Rabbit
<b>Specificity</b>	Specific for rat spinophilin at 120kD. Also recognizes a band at ~95 kDa which is suspected to be a cleavage product of neurabin 2.
<b>Tested applications</b>	<b>Suitable for:</b> WB, IP
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Dog, Human, Chimpanzee
<b>Immunogen</b>	Fusion protein, corresponding to internal sequence amino acids 286-390 of Rat brain Neurabin 2.
<b>Positive control</b>	Rat brain microsomal preparation.

### Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	Preservative: 0.05% Sodium Azide Constituents: 30% Glycerol, 0.15M Sodium chloride, 0.1M Tris glycine. pH 7.4
<b>Purity</b>	Protein G purified
<b>Purification notes</b>	Purified by chromatography.
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

### Applications

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Our [Abpromise guarantee](#) covers the use of **ab18561** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		
IP		
<b>Application notes</b>	<p>IP: 4 µg immunoprecipitates Neurabin 2 from 500 µg of rat brain microsomal preparation.            WB: 0.25 - 1 µg/ml detected Neurabin 2 in 20 µg of a rat brain microsomal preparation. Detects a band of approximately 120 kDa (predicted molecular weight: 89 kDa).</p> <p>Not tested in other applications.            Optimal dilutions/concentrations should be determined by the end user.</p>	
<b>Target</b>		
<b>Function</b>	<p>Seems to act as a scaffold protein in multiple signaling pathways. Modulates excitatory synaptic transmission and dendritic spine morphology. Binds to actin filaments (F-actin) and shows cross-linking activity. Binds along the sides of the F-actin. May play an important role in linking the actin cytoskeleton to the plasma membrane at the synaptic junction. Believed to target protein phosphatase 1/PP1 to dendritic spines, which are rich in F-actin, and regulates its specificity toward ion channels and other substrates, such as AMPA-type and NMDA-type glutamate receptors. Plays a role in regulation of G-protein coupled receptor signaling, including dopamine D2 receptors and alpha-adrenergic receptors. May establish a signaling complex for dopaminergic neurotransmission through D2 receptors by linking receptors downstream signaling molecules and the actin cytoskeleton. Binds to ADRA1B and RGS2 and mediates regulation of ADRA1B signaling. May confer to Rac signaling specificity by binding to both, RacGEFs and Rac effector proteins. Probably regulates p70 S6 kinase activity by forming a complex with TIAM1 (By similarity). Required for hepatocyte growth factor (HGF)-induced cell migration.</p>	
<b>Sequence similarities</b>	<p>Contains 1 PDZ (DHR) domain.</p>	
<b>Post-translational modifications</b>	<p>Stimulation of D1 (but not D2) dopamine receptors induces Ser-94 phosphorylation. Dephosphorylation of Ser-94 is mediated mainly by PP1 and to a lesser extent by PP2A. Phosphorylation of spinophilin disrupts its association with F-actin, but does not affect its binding to PP1.</p>	
<b>Cellular localization</b>	<p>Cytoplasm &gt; cytoskeleton. Nucleus. Cell projection &gt; dendritic spine. Cell junction &gt; synapse. Cell junction &gt; adherens junction. Cytoplasm. Cell membrane. Cell projection &gt; lamellipodium. Cell projection &gt; filopodium. Cell projection &gt; ruffle membrane. Enriched at synapse and cadherin-based cell-cell adhesion sites. In neurons, both cytosolic and membrane-associated, and highly enriched in the post-synaptic density apposed to excitatory synapses. Colocalizes with PPP1R2 at actin-rich adherens junctions in epithelial cells and in dendritic spines (By similarity). Accumulates in the lamellipodium, filopodium and ruffle membrane in response to hepatocyte growth factor (HGF) treatment.</p>	

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