SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

Rabbit Anti-Neurabin 2 antibody

SL12146R

Product Name	Neurabin 2
Chinese Name	神经组织特异性 F 肌动蛋白 Binding protein2 抗体
Alias	FLJ30345; NEB2_HUMAN; Neurabin II; Neurabin-2; Neurabin-II; Neurabin2; NeurabinII; Neu specific F actin binding protein II; p130; PP1bp134; PPP1R6; PPP1R9; PPP1R9B; Protein phos 9B; SPINO; Spinophilin.
Research Area	Cell biology Neurobiology Signal transduction Cell adhesion molecule Cytoskeleton
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Mouse,Rat (predicted:Human,Dog,Pig,Sheep)
Applications	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 （Paraffin sections need a not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	89kDa
Cellular localization	The nucleus cytoplasmic The cell membrane
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human Spinophilin/Neurabin 2: 358-460/815
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or d
PubMed	PubMed
Product Detail	Neurabin-II, also called spinophilin, interacts with actin and PP-1 in dendritic spines of the centr gene encoding human neurabin-II maps to chromosome 17q21-q22 (2). The structural characteri

one F-actin binding domain at the N-terminal region, a predicted coiled-coil struture at the C-tern middle region, and a domain known to interact with transmembrane proteins (1). Neurabin-II bu (1). In vivo, spinophilin localizes to the cortical sites of actin filaments and to the sites of active Neurabin-II also forms a complex with the catalytic subunit of PP1 and modulates PP1 enzymati Neurabin-II localizes to the head of dendritic spines (2) and aids in the ability of PP-1 to regulate a-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid (AMPA) and N-methyl-D-asparate (NM manner, neurabin-II modulates both glutamatergic synaptic transmission and dendritic morpholo interactions between spinophilin and human tumor supressor ARF suggest a role for neurabin-II

Function:
Seems to act as a scaffold protein in multiple signaling pathways. Modulates excitatory synaptic spine morphology. Binds to actin filaments (F-actin) and shows cross-linking activity. Binds alo May play an important role in linking the actin cytoskeleton to the plasma membrane at the syna target protein phosphatase 1/PP1 to dendritic spines, which are rich in F-actin, and regulates its sp and other substrates, such as AMPA-type and NMDA-type glutamate receptors. Plays a role in r coupled receptor signaling, including dopamine D2 receptors and alpha-adrenergic receptors. Ma complex for dopaminergic neurotransmission through D2 receptors by linking receptors downstr the actin cytoskeleton. Binds to ADRA1B and RGS2 and mediates regulation of ADRA1B signa signaling specificity by binding to both, RacGEFs and Rac effector proteins. Probably regulates forming a complex with TIAM1 (By similarity). Required for hepatocyte growth

Subunit:
Interacts with DCLK2 (By similarity). Possibly exists as a homodimer, homotrimer or a homotet PPP1CA, neurabin-1, TGN38 and D(2) dopamine receptor. Interacts with RGS1, RGS2, RGS4, ADRA2A, ADRA2B, ADRA2C, CDKN2A, PPP1R2, RASGFR1 and TIAM1. Interacts (via C-te C-terminal tail).

Subcellular Location:
Cytoplasm, cytoskeleton (By similarity). Nucleus (By similarity). Cell projection, dendritic spin junction, synapse. Cell junction, adherens junction (By similarity). Cytoplasm. Cell membrane. lamellipodium. Cell projection, filopodium. Cell projection, ruffle membrane. Note=Enriched at cell-cell adhesion sites. In neurons, both cytosolic and membrane-associated, and highly enriche apposed to exitatory synapses. Colocalizes with PPP1R2 at actin-rich adherens junctions in epith spines (By similarity). Accumulates in the lamellipodium, filopodium and ruffle membrane in re factor (HGF) treatment.

Post-translational modifications:
Stimulation of D1 (but not D2) dopamine receptors induces Ser-94 phosphorylation. Dephosphor mainly by PP1 and to a lesser extent by PP2A. Phosphorylation of spinophilin disrupts its associ not affect its binding to PP1.

Similarity:
Contains 1 PDZ (DHR) domain.

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SWISS:
Q96SB3

Gene ID:
84687

Database links:

Entrez Gene: 84687 Human

Entrez Gene: 217124 Mouse

Entrez Gene: 84686 Rat

Omim: 603325 Human

SwissProt: Q96SB3 Human

SwissProt: Q6R891 Mouse

SwissProt: O35274 Rat

Unigene: 514323 Human

Unigene: 229087 Mouse

Unigene: 476821 Mouse

Unigene: 6764 Rat

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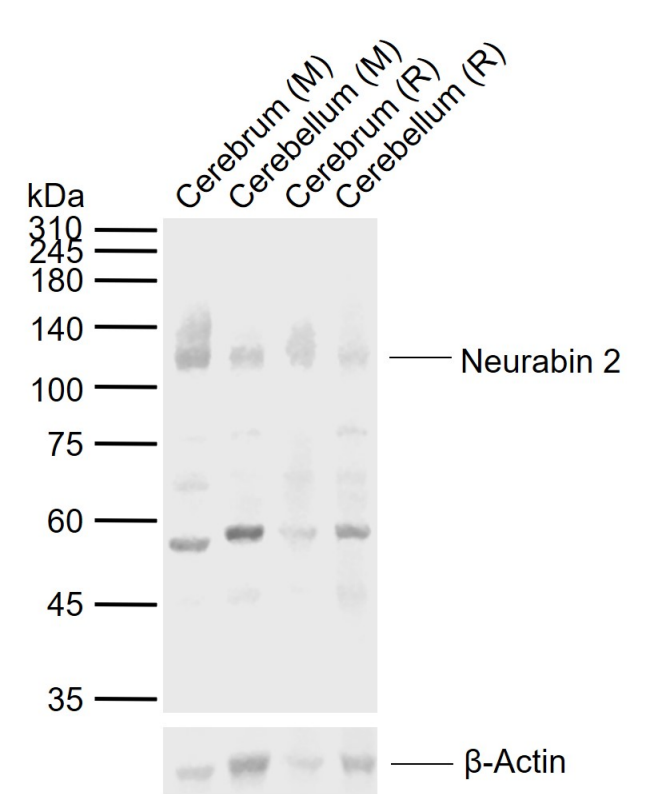
Product Picture



Sample:

Lane 1: Mouse Cerebrum tissue lysates

Lane 2: Mouse Cerebellum tissue lysates

Lane 3: Rat Cerebrum tissue lysates

Lane 4: Rat Cerebellum tissue lysates

Primary: Anti-Neurabin 2 (SL12146R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 89 kDa

Observed band size: 115 kDa

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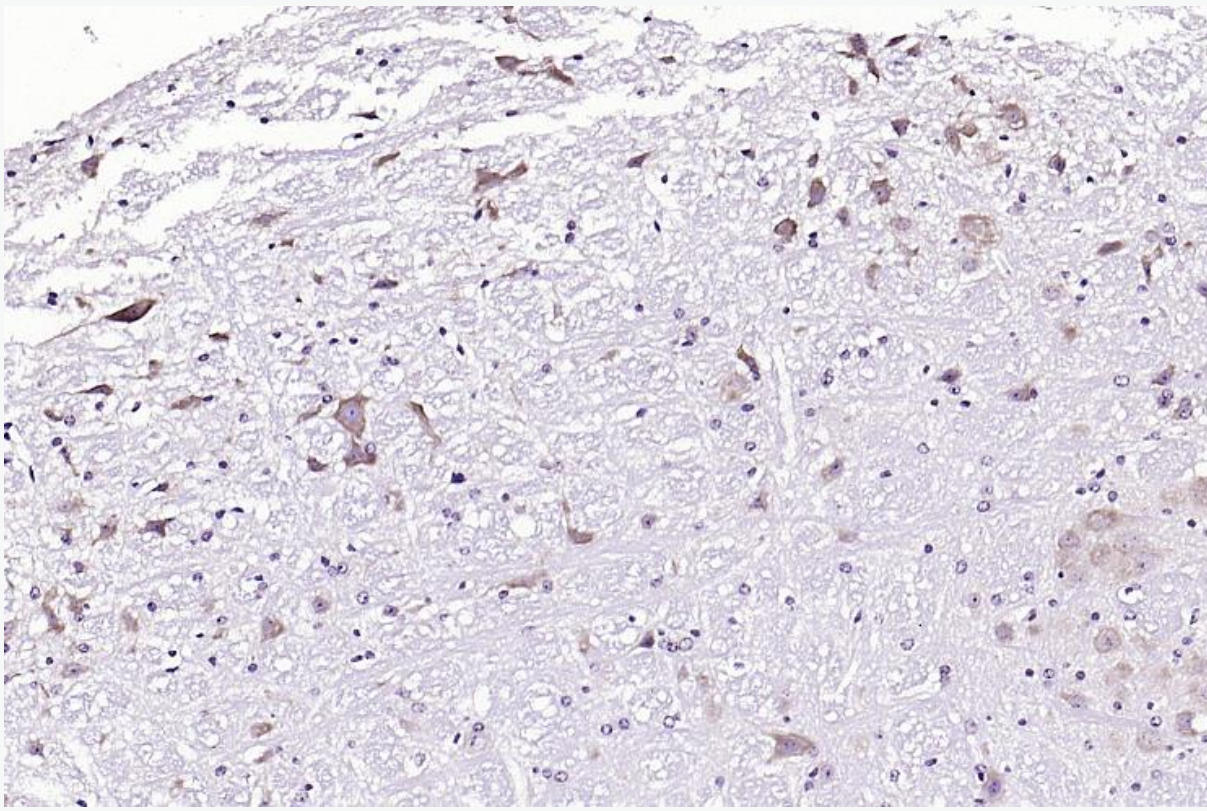

Paraformaldehyde-fixed, paraffin embedded (mouse cerebellum); Antigen retrieval by boiling
(pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Bl
serum) at 37°C for 30min; Antibody incubation with (Neurabin 2) Polyclonal Antibody, Unco
1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructi

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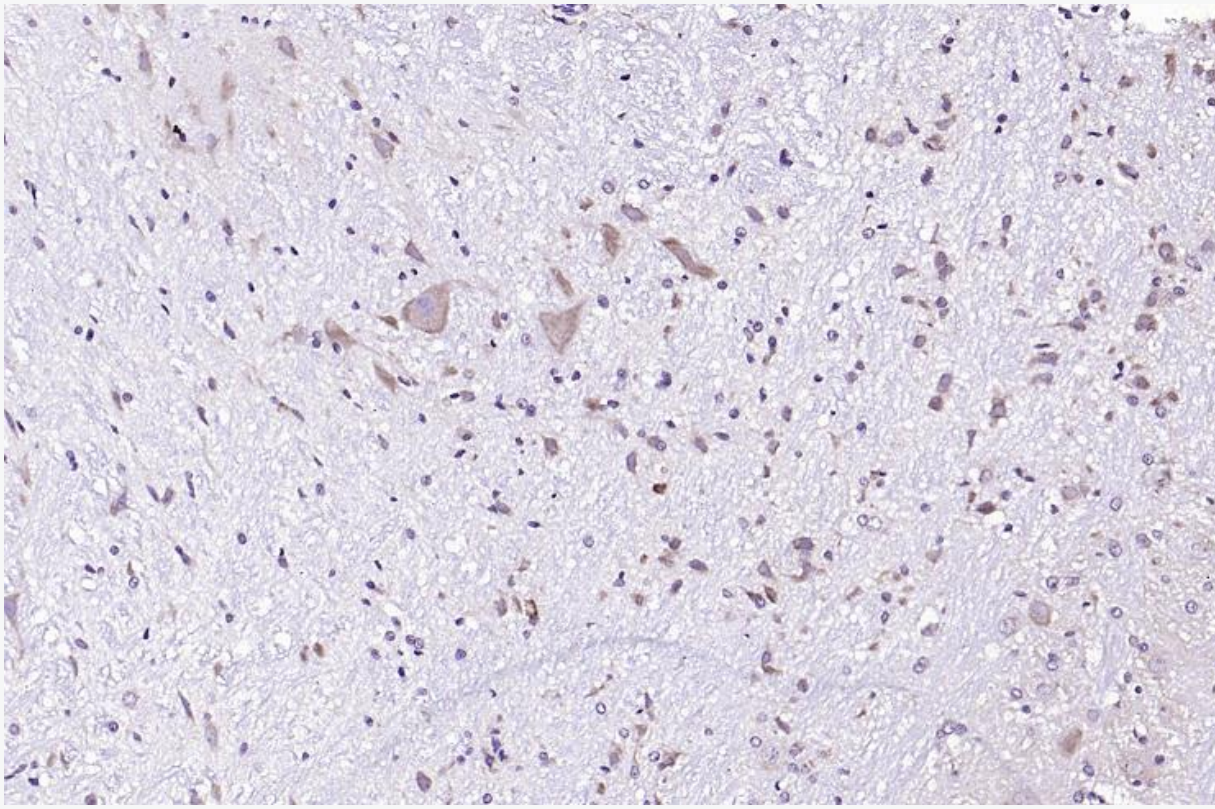

Paraformaldehyde-fixed, paraffin embedded (Rat cerebellum); Antigen retrieval by boiling in
(pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Bl
serum) at 37°C for 30min; Antibody incubation with (Neurabin 2) Polyclonal Antibody, Unco
1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructi

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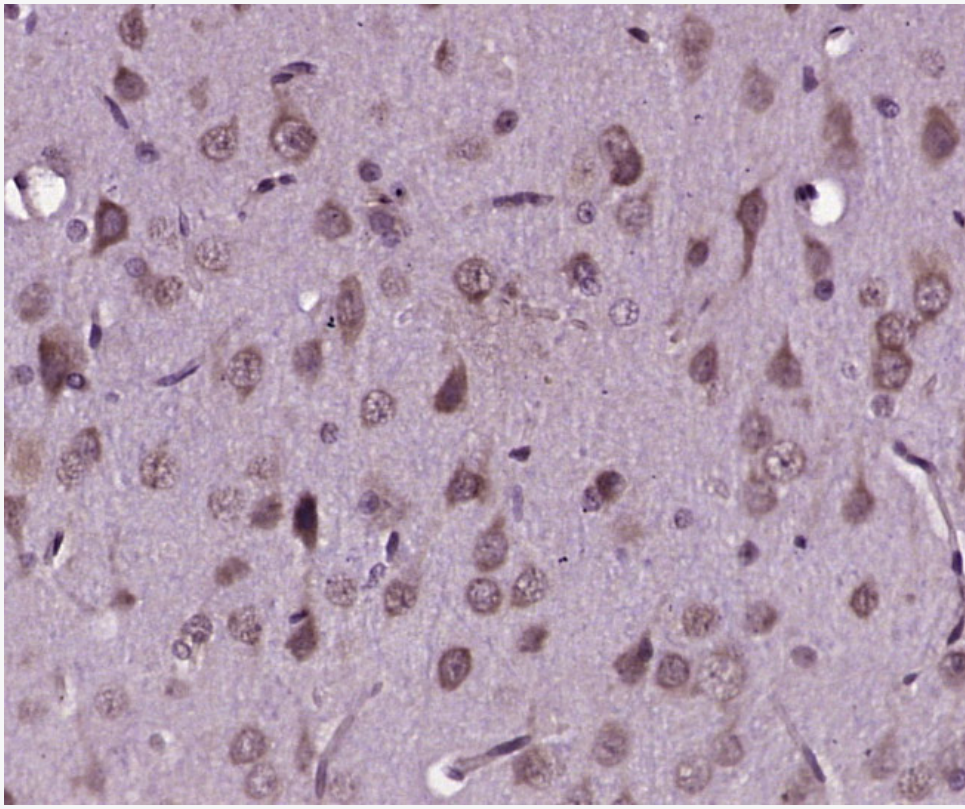

Paraformaldehyde-fixed, paraffin embedded (rat brain tissue); Antigen retrieval by boiling in s
(pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Bl
serum) at 37°C for 30min; Antibody incubation with (Neurabin 2) Polyclonal Antibody, Unco
1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructi

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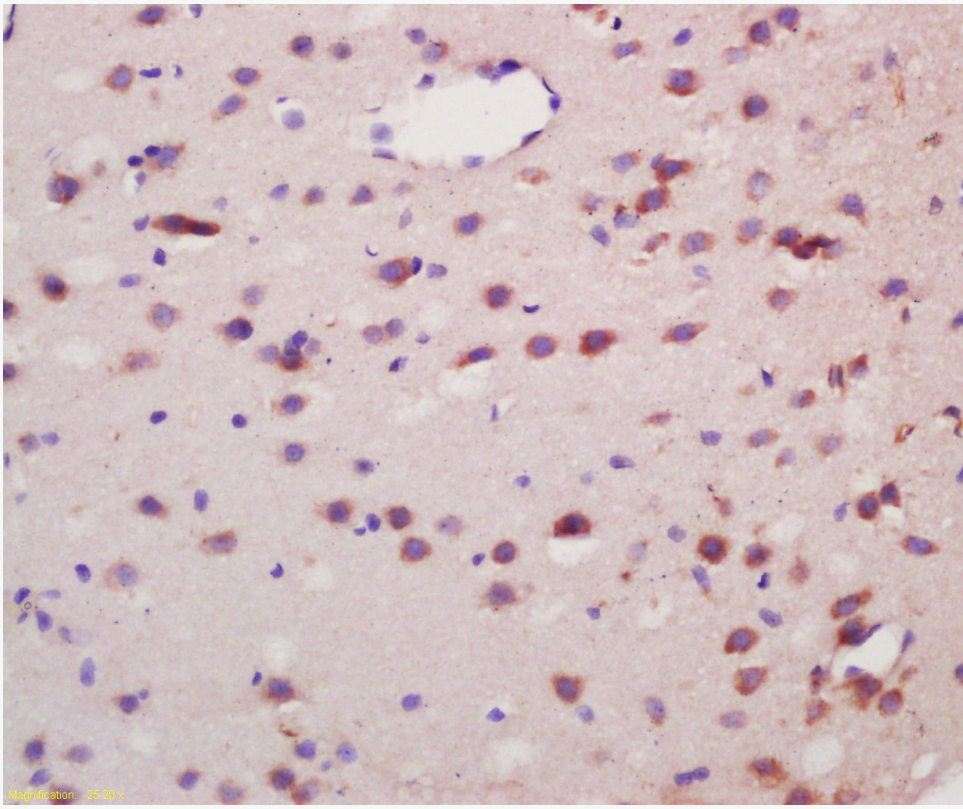

Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous p

peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

Incubation: Anti-Neurabin 2 Polyclonal Antibody, Unconjugated(SL12146R) 1:200, overnigh

conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

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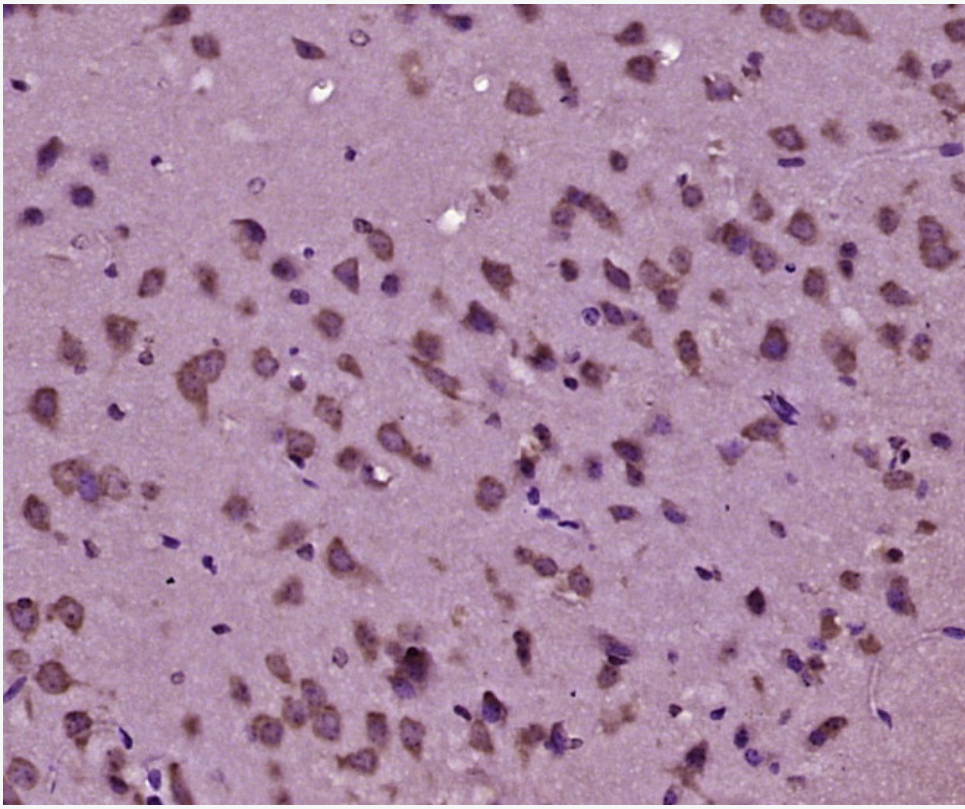

Paraformaldehyde-fixed, paraffin embedded (mouse brain tissue); Antigen retrieval by boiling (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Bl serum) at 37°C for 30min; Antibody incubation with (Neurabin 2) Polyclonal Antibody, Unco 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructi