

Rabbit Anti-CACNA1G + CACNA1H antibody

SL11984R

Product Name CACNA1G + CACNA1H

Chinese Name 电压依赖性钙通道 CACNA1G+CACNA1H 抗体

Alias Cav3.1c; T-type Ca⁺⁺ CP α 1H; Low voltage activated calcium channel alpha 1.3.2 subunit; NBR13; Voltage dependent T type calcium channel subunit alpha 1G; Voltage dependent T type calcium channel subunit alpha 1H; Voltage gated calcium channel subunit alpha Cav3.1; Voltage gated calcium channel subunit alpha Cav3.2; CAC1G_HUMAN; CAC1H_HUMAN.

Research Area Cell biology Signal transduction Channel protein The cell membrane 蛋白

Immunogen Species Rabbit

Clonality Polyclonal

React Species Human,Mouse,Rat(predicted:Dog,Cow)

Applications IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 (Paraffin sections need antigen repair)
not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight 262kDa

Cellular localization The cell membrane

Form Liquid

Concentration 1mg/ml

immunogen KLH conjugated synthetic peptide derived from human CACNA1G + CACNA1H: 311-420/2377 <Extracellular>

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°C. 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 diagnostic applications.

PubMed

[PubMed](#)

Voltage-sensitive calcium channels (VSCC) mediate the entry of calcium ions into excitable cells and are also involved in a variety of calcium-dependent processes, including muscle contraction, hormone or neurotransmitter release, gene expression, cell motility, cell division and cell death. The isoform alpha-1G gives rise to T-type calcium currents. T-type calcium channels belong to the "low-voltage activated (LVA)" group and are strongly blocked by mibefradil. A particularity of this type of channels is an opening at quite negative potentials and a voltage-dependent inactivation. T-type channels serve pacemaking functions in both central neurons and cardiac nodal cells and support calcium signaling in secretory cells and vascular smooth muscle. They may also be involved in the modulation of firing patterns of neurons which is important for information processing as well as in cell growth processes. There are 2 isoforms of CACNA1H and 14 isoforms of CACNA1G, produced by alternative splicing.

Product Detail

Function:

Voltage-sensitive calcium channels (VSCC) mediate the entry of calcium ions into excitable cells and are also involved in a variety of calcium-dependent processes, including muscle contraction, hormone or neurotransmitter release, gene expression, cell motility, cell division and cell death. The isoform alpha-1G gives rise to T-type calcium currents. T-type calcium channels belong to the 'low-voltage activated (LVA)' group and are strongly blocked by mibefradil. A particularity of this type of channels is an opening at quite negative potentials and a voltage-dependent inactivation. T-type channels serve pacemaking functions in both central neurons and cardiac nodal cells and support calcium signaling in secretory cells and vascular smooth muscle. They may also be involved in the modulation of firing patterns of neurons which is important for information processing as well as in cell growth processes.

Subcellular Location:

Membrane; Multi-pass membrane protein.

Tissue Specificity:

Highly expressed in brain, in particular in the amygdala, subthalamic nuclei, cerebellum and thalamus. Moderate expression in heart; low expression in placenta, kidney and lung. Also expressed in colon and bone marrow and in tumoral cells to a lesser extent. Highly expressed in fetal brain, but also in peripheral fetal tissues as heart, kidney and lung, suggesting a developmentally regulated expression.

Post-translational modifications:

In response to raising of intracellular calcium, the T-type channels are activated by CaM-kinase II.

Similarity:

Belongs to the calcium channel alpha-1 subunit (TC 1.A.1.11) family. CACNA1G subfamily.

SWISS:

O43497

Gene ID:

8913

Database links:

CACNA1G:

[Entrez Gene: 8913](#) Human

[Entrez Gene: 12291](#) Mouse

[Entrez Gene: 29717](#) Rat

[Omim: 604065](#) Human

[SwissProt: O43497](#) Human

[SwissProt: O54898](#) Rat

[Unigene: 29585](#) Mouse

[Unigene: 86960](#) Rat

CACNA1H:

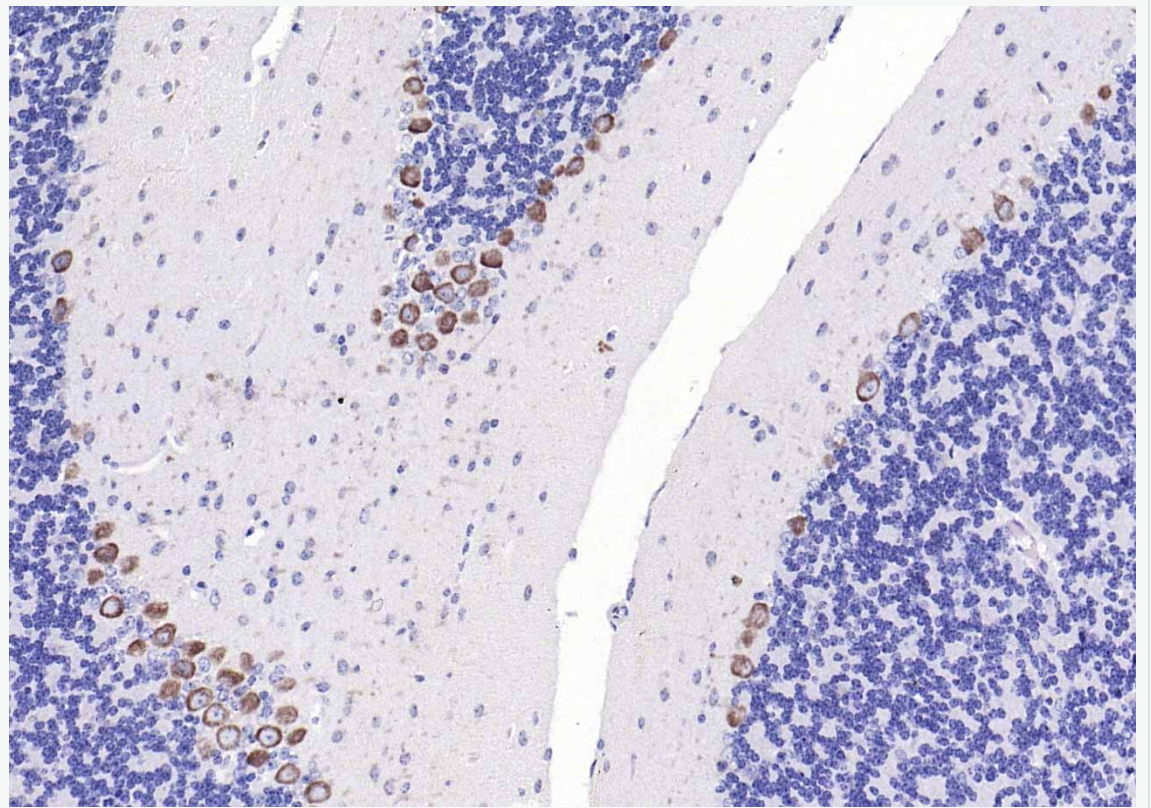
[Entrez Gene: 8912](#) Human

[Omim: 607904](#) Human

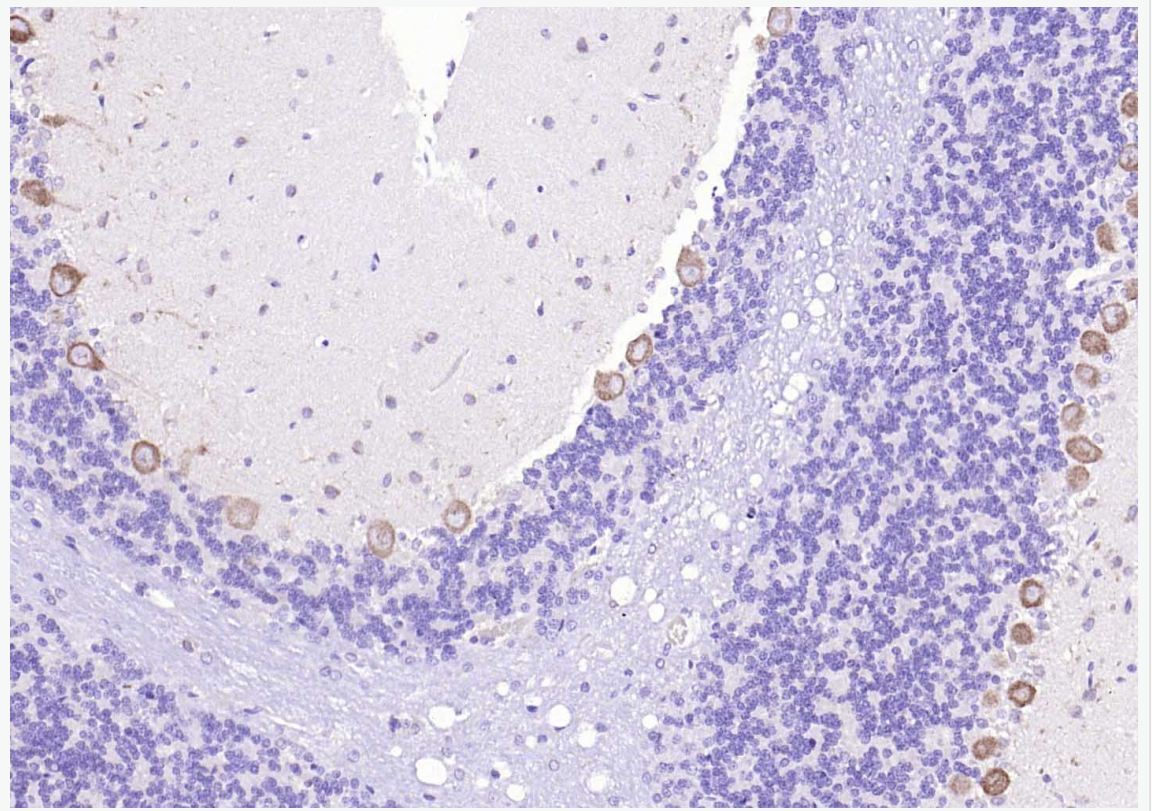
[SwissProt: O95180](#) Human

[Unigene: 459642](#) Human

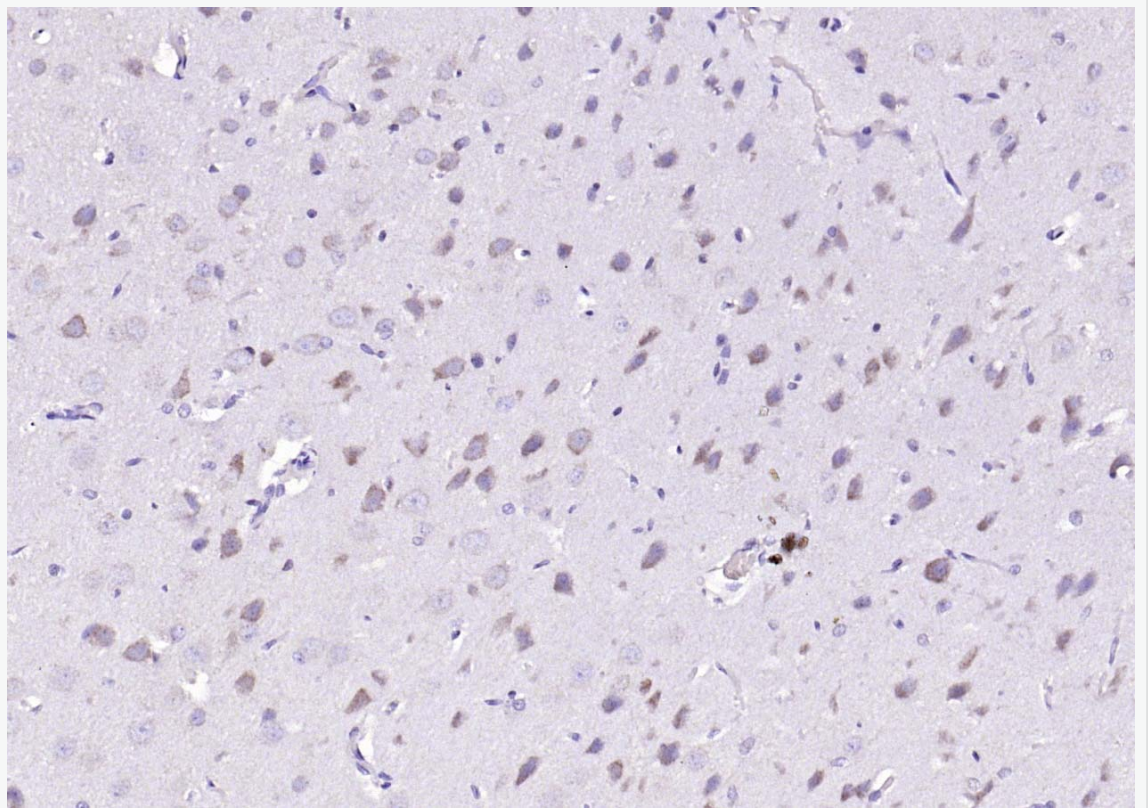
**Product
Picture**



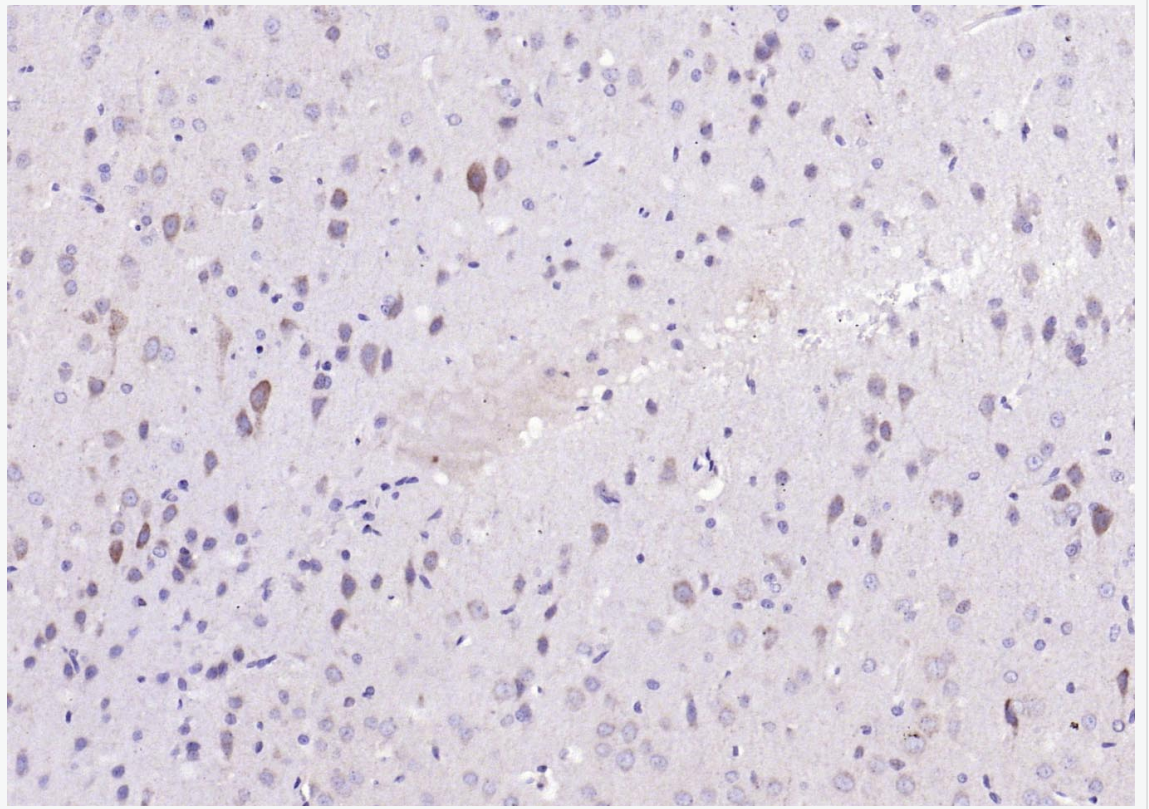
Paraformaldehyde-fixed, paraffin embedded (mouse cerebellum); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (CACNA1G + CACNA1H) Polyclonal Antibody, Unconjugated (SL11984R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



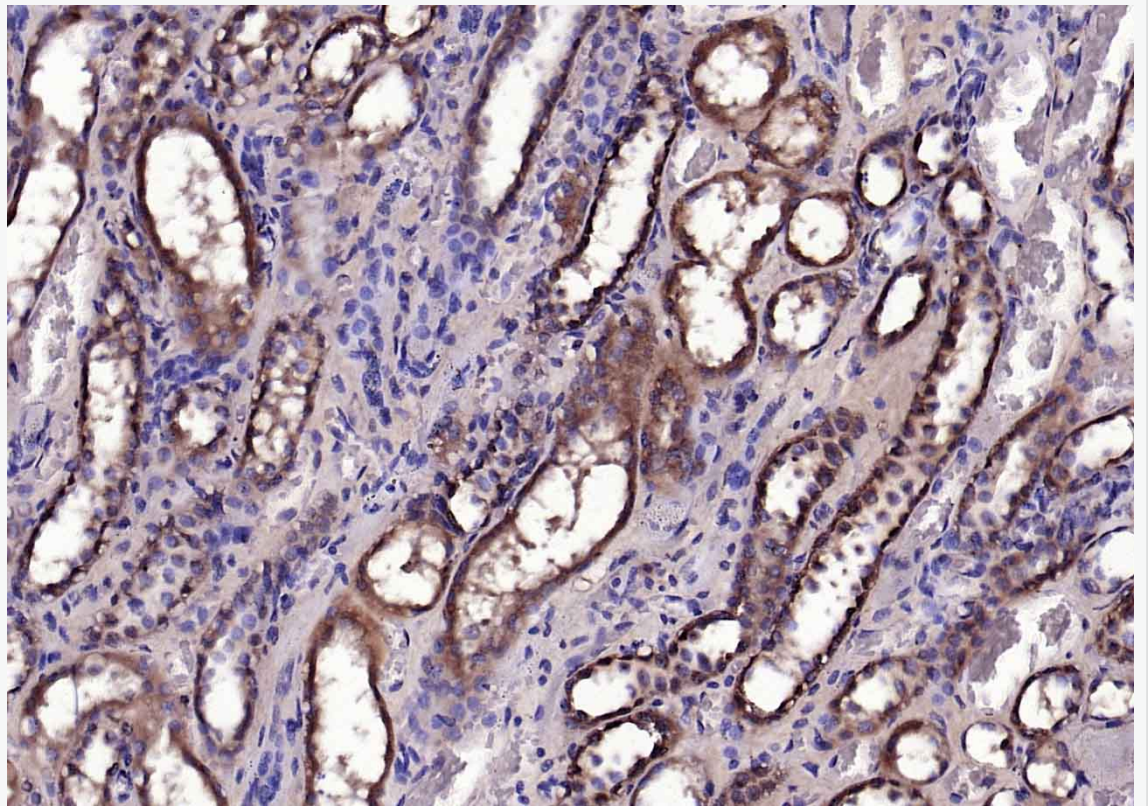
Paraformaldehyde-fixed, paraffin embedded (rat cerebellum); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (CACNA1G + CACNA1H) Polyclonal Antibody, Unconjugated (SL11984R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



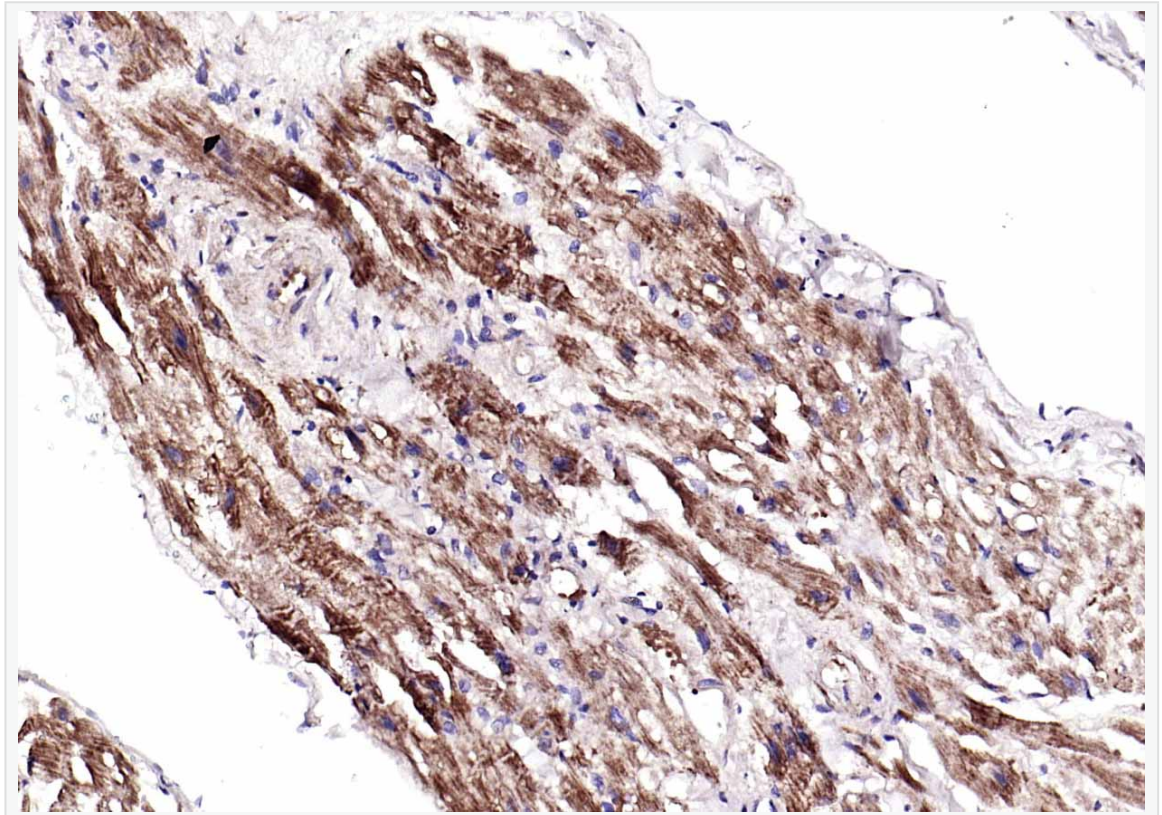
Paraformaldehyde-fixed, paraffin embedded (mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (CACNA1G + CACNA1H) Polyclonal Antibody, Unconjugated (SL11984R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



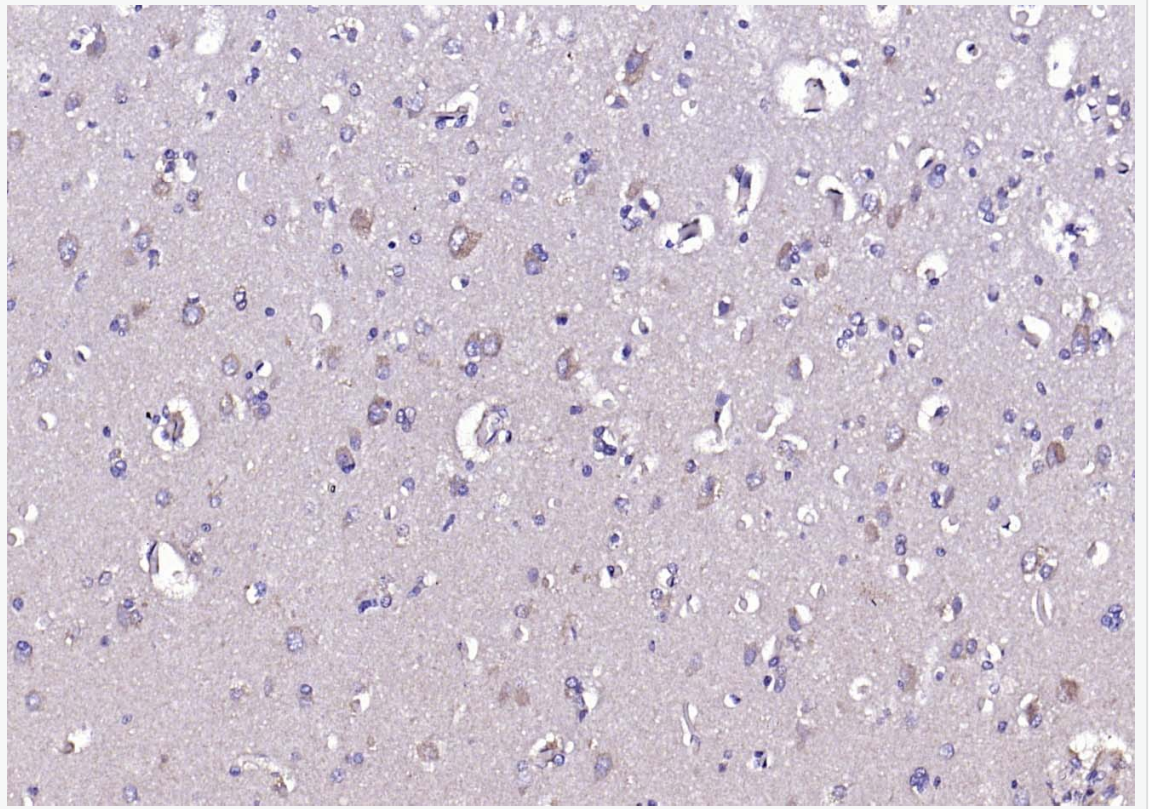
Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (CACNA1G + CACNA1H) Polyclonal Antibody, Unconjugated (SL11984R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Human kidney); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (CACNA1G + CACNA1H) Polyclonal Antibody, Unconjugated (SL11984R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (human myocardium); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (CACNA1G + CACNA1H) Polyclonal Antibody, Unconjugated (SL11984R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (human brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (CACNA1G + CACNA1H) Polyclonal Antibody, Unconjugated (SL11984R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.