For Research Use Only

CACNA1C Polyclonal antibody

Catalog Number:21774-1-AP 27 Publications

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Basic Information

Catalog Number:
21774-1-AP

Concentration:
600 ug/ml

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG16455

GenBank Accession Number:
BC146846

GeneID (NCBI):
775

UNIPROT ID:
Q13936

Full Name:
calcium channel, voltage-dependent, L type, alpha 1C subunit

Calculated MW:
249 kDa

Observed MW:
249 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB: 1:500-1:2000
IHC: 1:200-1:800
IF-P: 1:50-1:500
FC (Intra): 0.40 ug per 10^6 cells in a 100 µl suspension

Applications

Tested Applications:
WB, IHC, IF-P, FC (Intra), ELISA

Cited Applications:
WB, IHC, IF

Species Specificity:
human, mouse, rat

Cited Species:
human, mouse, rat, rabbit

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : mouse heart tissue,

IHC : mouse brain tissue, rat brain tissue, mouse liver tissue

IF-P : mouse brain tissue,

FC (Intra) : HeLa cells,

Background Information

Calcium voltage-gated channel subunit alpha1 C (CACNA1C, also known as CACH2 and Cav1.2) couples transient activation of inward calcium current to transcriptional regulation and plays an important role in dendritic development, neuronal survival, synaptic plasticity, memory formation, learning, and behavior (PMID: 21248242; 16251435; 20169575; 19047462; 18174367). Genetic variation in CACNA1C has also been associated with depression, schizophrenia, and autism spectrum disorders, as well as changes in brain function and structure in control subjects who have no diagnosable psychiatric illness (PMID: 22705413).

Notable Publications

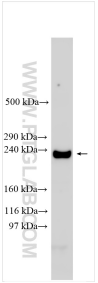
Author	Pubmed ID	Journal	Application
Zhangchi Liu	36332480	Biochem Biophys Res Commun	WB
Chao Gao	34667723	Int J Ophthalmol	WB
Yaxiong Yang	35589958	Commun Biol	WB

Storage

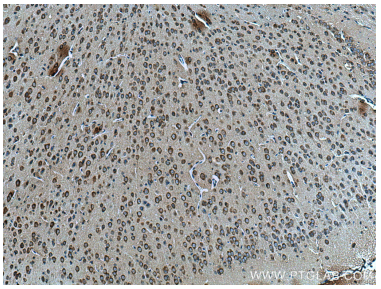
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

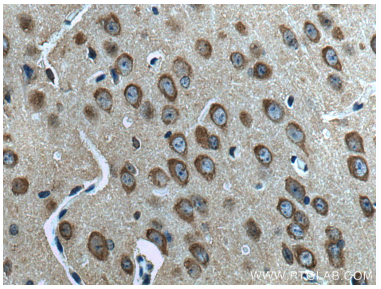
Selected Validation Data



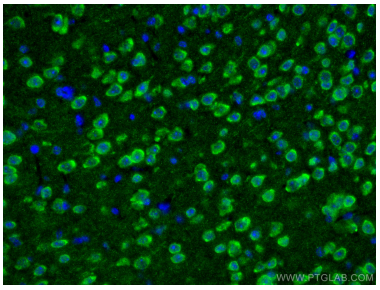
Mouse heart lysate was subjected to SDS PAGE, followed by western blot with 21774-1-AP (CACNA1C antibody) at a dilution of 1:1000 incubated at room temperature for 1.5 hours.



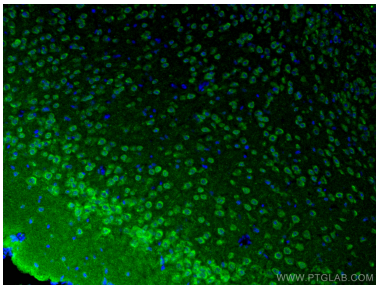
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 21774-1-AP (L-VOCC antibody) at dilution of 1:400 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 21774-1-AP (L-VOCC antibody) at dilution of 1:400 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed mouse brain tissue using L-VOCC antibody (21774-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



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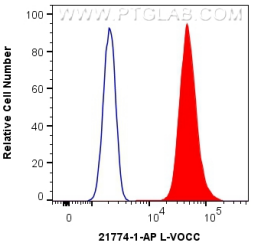

1X10^6 HeLa cells were intracellularly stained with 0.4 ug Anti-Human L-VOCC (21774-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Isotype Control. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).