

# CACNA2D4 Polyclonal antibody

Catalog Number: 26674-1-AP

## Basic Information

**Catalog Number:**

26674-1-AP

**Concentration:**

700 ug/ml

**Source:**

Rabbit

**Isotype:**

IgG

**Immunogen Catalog Number:**

AG24464

**GenBank Accession Number:**

BC150186

**GeneID (NCBI):**

93589

**UNIPROT ID:**

Q7Z3S7

**Full Name:**

calcium channel, voltage-dependent,  
alpha 2/delta subunit 4

**Calculated MW:**

1137 aa, 128 kDa

**Observed MW:**

100 kDa

**Purification Method:**

Antigen affinity purification

**Recommended Dilutions:**

WB 1:500-1:2000

IHC 1:50-1:500

## Applications

**Tested Applications:**

WB, IHC, ELISA

**Species Specificity:**

human, mouse, rat

**Positive Controls:**

WB : mouse brain tissue, rat brain tissue

IHC : mouse brain tissue,

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

## Background Information

Calcium voltage-gated channel auxiliary subunit alpha2delta 4 (CACNA2D4, also known as RCD4) is a member of the alpha-2/delta subunit family within the voltage-dependent calcium channel complex. The  $\alpha 2 \delta 4$  subunit of retinal voltage-gated calcium channels (Cav), is crucial for developing and mature exocytotic function of the photoreceptor ribbon synapse (PMID: 29875267). CACNA2D4 is localized to the retina, particularly in photoreceptors, where it is essential for organizing synaptic ribbons and setting Cav1.4 voltage sensitivity (PMID: 28262416). In humans, mutations in CACNA2D4 are associated with autosomal recessive cone dystrophy, a condition that affects the photoreceptor cells in the retina (PMID: 16877424).

## Storage

**Storage:**

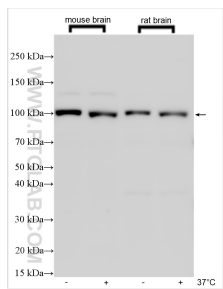
Store at -20°C. Stable for one year after shipment.

**Storage Buffer:**

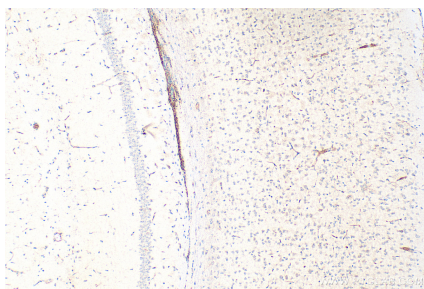
PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

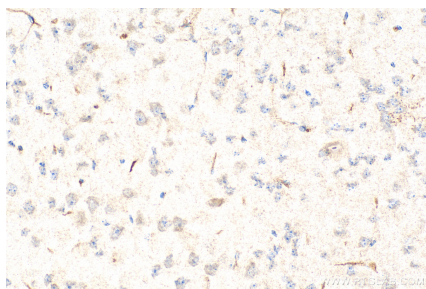
## Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 26674-1-AP (CACNA2D4 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 26674-1-AP (CACNA2D4 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 26674-1-AP (CACNA2D4 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).