

Product Datasheet

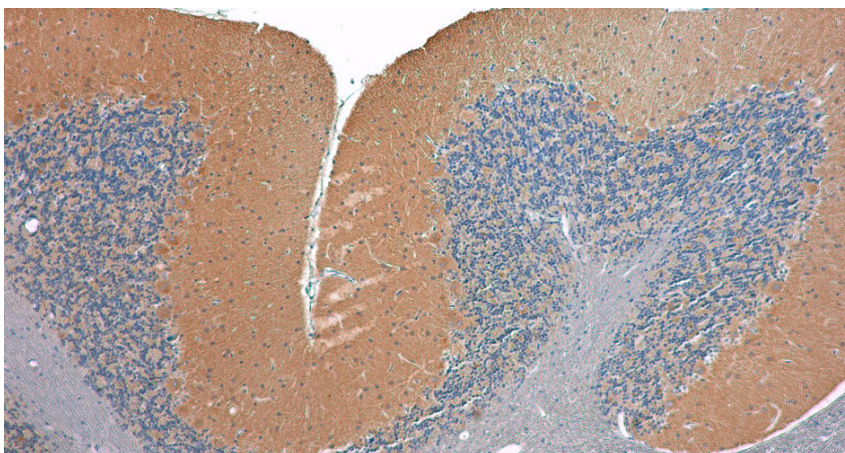
Chickens make *better* antibodies.

Anti-Cav $\alpha 2\delta 2$ (N492/39) Recombinant Chicken Chimeric mAb Antibody

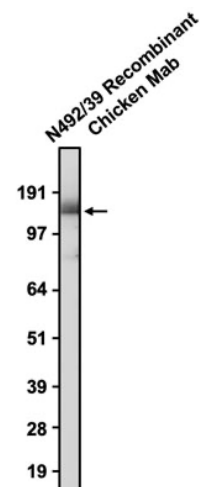
Overview

Catalog #	78-530 (100 μ L size) or 78-530-020 (20 μ L size)
Conjugate	Unconjugated
Isotype	IgY
Clone Number	N492/39
Concentration	1 mg/mL
Host Species	Chicken Recombinant
Format	Purified by affinity chromatography
Buffer	1X PBS, 0.05% Sodium Azide pH 7.4
Applications	ELISA, ICC, IHC, WB
Species Reactivity	Human, Mouse, and Rat
Immunogen	Recombinant protein amino acids 61-197 (extracellular domain) of mouse Cav $\alpha 2\delta 2$ (also known as voltage-dependent R-type calcium channel subunit alpha-2/delta-2, Cacna2d2, accession number Q6PHS9) produced recombinantly in E.Coli.
Molecular Weight	130 kDa

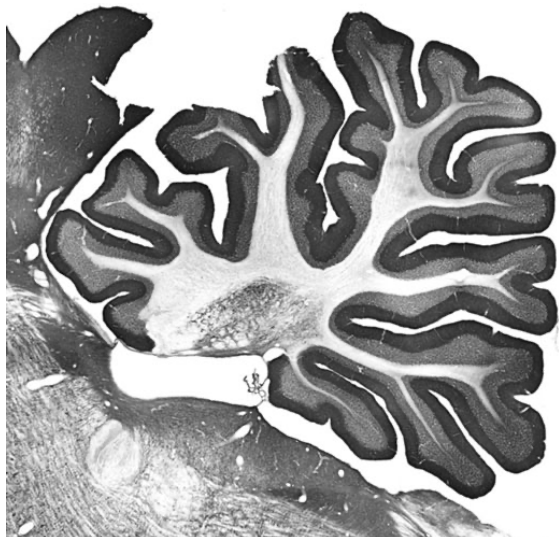
Images



Representative image of formalin fixed paraffin embedded section of rat cerebellum section stained with Aves Labs anti-Cav $\alpha 2\delta 2$ recombinant chicken monoclonal antibody (brown, Cat No. 78-530) and counterstained with hematoxylin (blue). Anti-Cav $\alpha 2\delta 2$ specifically stains the Purkinje cells in the cerebellum.



Western blotting of rat brain membrane with anti-Cav $\alpha 2\delta 2$ recombinant chicken mAb (Cat No. 78-503) antibody, recognizing endogenous Cav $\alpha 2\delta 2$ at ~130 kDa, and detected with anti-chicken-HRP (Cat No. 80-1000-HRP).



Immunohistochemistry staining of cerebellum region from adult rats using anti-Cav α 2 δ 2 NeuroMab mouse monoclonal antibody (Clone N492/39). The variable region of this antibody was used to generate the recombinant chicken chimeric anti-Cav α 2 δ 2 antibody (78-530).

Details

Scientific Background

Cav α 2 δ 2 is an auxiliary subunit of voltage-gated calcium channels that modulates channel trafficking, gating, and pharmacological properties. Encoded by the CACNA2D2 gene, this glycoprotein is synthesized as a single precursor that is post-translationally cleaved into the extracellular α 2 and membrane-anchored δ 2 subunits, linked by disulfide bonds. Cav α 2 δ 2 enhances calcium current density by promoting the proper trafficking of pore-forming Cav α 1 subunits to the plasma membrane and stabilizing them at synaptic sites. It plays a key role in neurotransmitter release, synaptic plasticity, and neuronal excitability. Altered expression or mutation of CACNA2D2 has been associated with neurological disorders, including epilepsy, cerebellar ataxia, and certain cancers, underscoring its importance in calcium channel regulation and disease pathophysiology.

Purification Method

This recombinant antibody is a chimeric antibody created by replacing the mouse heavy and light constant regions clone N492/39 with chicken IgY heavy and light constant regions. As such this antibody retains the same binding performance as the original clone N492/39 but can be detected using standard anti-chicken secondary antibodies allowing flexibility for multiplexing applications. This antibody is expressed recombinantly in mammalian cells and then affinity purified from the cell culture media.

Quality Control Tests

Each new lot of antibody is quality control tested by Western blot on rat brain membrane fraction and confirmed to stain the expected molecular weight band.

Storage

Aliquot and store at $\leq -20^{\circ}\text{C}$ for long term storage. For short term storage, store at $2-8^{\circ}\text{C}$. For maximum recovery of product, centrifuge the vial prior to removing the cap.

Our Guarantee

As an original manufacturer, we are dedicated to creating quality and reproducible antibodies that further your research. We provide personalized customer support from the scientists that made the antibody and offer a free replacement or 100% refund if we cannot resolve an issue. Order today and experience how chickens make better antibodies.

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