

Product Datasheet

CACNB2 Antibody - BSA Free

NBP1-86680

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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NBP1-86680

CACNB2 Antibody - BSA Free

Product Information	
Unit Size	0.1 ml
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Affinity purified
Buffer	PBS (pH 7.2) and 40% Glycerol

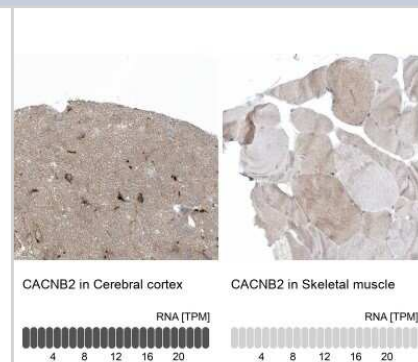
Product Description	
Description	Novus Biologicals Rabbit CACNB2 Antibody - BSA Free (NBP1-86680) is a polyclonal antibody validated for use in IHC, WB and ICC/IF. Anti-CACNB2 Antibody: Cited in 1 publication. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	783
Gene Symbol	CACNB2
Species	Human, Rat
Reactivity Notes	Use in Rat reported in scientific literature (PMID:35047492). Immunogen displays the following percentage of sequence identity for non-tested species: Mouse (81%)
Immunogen	This antibody was developed against Recombinant Protein corresponding to amino acids: RDSAYVEPKEDYSHDHVDHYASHRDHNHRDETHGSSDHRHRESRHRSRDVD REQDHNECNKQRSRHKSKDRYCEKDGEVI

Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunocytochemistry/Immunofluorescence, Immunohistochemistry
Recommended Dilutions	Western Blot Reported in scientific literature (PMID:35047492), Immunohistochemistry 1:200 - 1:500, Immunocytochemistry/Immunofluorescence Reported in scientific literature (PMID:35047492), Immunohistochemistry-Paraffin 1:200 - 1:500
Application Notes	IHC-Paraffin, HIER pH 6 retrieval is recommended.

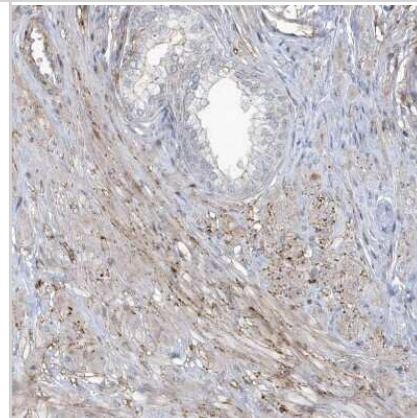


Images

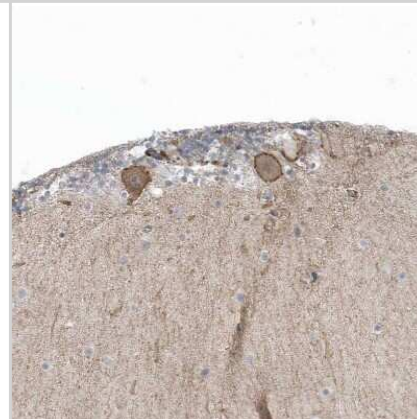
Immunohistochemistry-Paraffin: CACNB2 Antibody [NBP1-86680] - Analysis in human cerebral cortex and skeletal muscle tissues. Corresponding CACNB2 RNA-seq data are presented for the same tissues.



Immunohistochemistry-Paraffin: CACNB2 Antibody [NBP1-86680] - Staining of human prostate shows weak to moderate membranous positivity in smooth muscle cells.



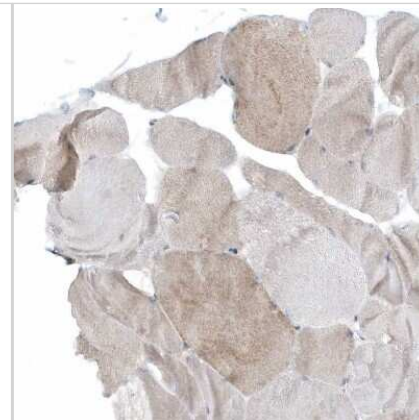
Immunohistochemistry-Paraffin: CACNB2 Antibody [NBP1-86680] - Staining of human cerebellum shows moderate to strong membranous positivity in Purkinje cells.



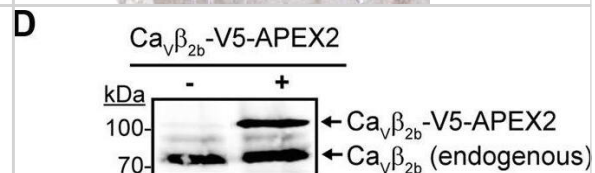
Immunohistochemistry-Paraffin: CACNB2 Antibody [NBP1-86680] - Staining of human cerebral cortex shows moderate to strong membranous positivity in neurons.



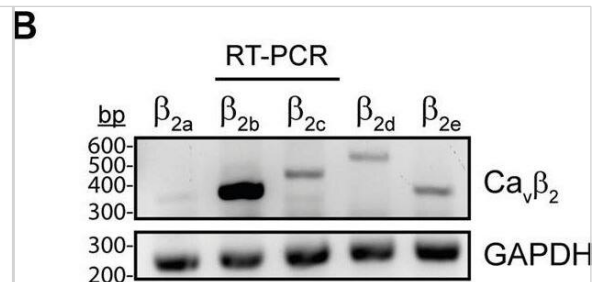
Immunohistochemistry-Paraffin: CACNB2 Antibody [NBP1-86680] - Staining of human skeletal muscle shows very weak positivity in myocytes.



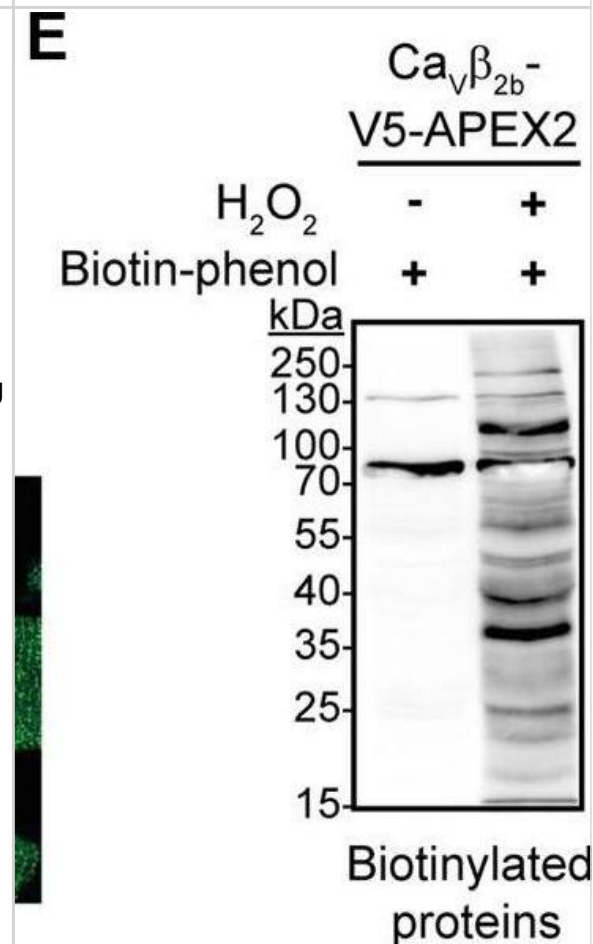
APEX2-mediated proximity biotinylation for the identification of proteins in the Cav β 2b nanoenvironments in cardiomyocytes. (A) Schematic representation of the APEX2-mediated proximity biotinylation workflow. ARCs were transduced with the construct Cav β 2b-V5-APEX2 using an adenoviral vector. APEX2 fused to Cav β 2b enables the biotin labeling of proteins located within a 20-nm radius of Cav β 2b when the substrates biotin-phenol and H₂O₂ are present. Biotinylated proteins are further enriched by streptavidin-coated beads through affinity purification and bound proteins are analyzed by mass spectrometry. (B) RT-PCR analysis of the expression pattern of the five Cav β 2 splice variants (Cav β 2a-Cav β 2e) in ARCs. GAPDH was used as control. (C) Western blot analyses to validate the specificity of the anti-Cav β 2b antibody using lysates from HEK-293 cells overexpressing the different Cav β 2 splice variants. A commercial anti-Cav β 2 and an anti-GAPDH antibodies were used as expression and loading controls, respectively. (D) Western blot analysis of Cav β 2b-V5-APEX2 expression in ARCs (i) and confocal fluorescence images of ARCs expressing or not Cav β 2b-V5-APEX2 and visualized using anti-Cav β 2b and anti-V5 antibodies to recognize the endogenous and the recombinant Cav β 2b proteins, respectively (ii). Scale bar represents 15 μ m. (E) Streptavidin blot analysis of endogenous proteins biotinylated by Cav β 2b-V5-APEX2 in ARCs. (F) Biotinylation of Cav1.2 by Cav β 2b-V5-APEX2. Western blot analysis using an anti-Cav1.2 antibody after streptavidin-mediated enrichment of biotinylated proteins. All the data shown are representative of three independent experiments. APEX2, ascorbate peroxidase; ARCs, adult rat cardiomyocytes; RyR2, ryanodine receptor 2; bp, base pairs. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/35047492>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



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Publications

Cruz-Garcia Y, Barkovits K, Kohlhaas M et al. Nanoenvironments of the beta-Subunit of L-Type Voltage-Gated Calcium Channels in Adult Cardiomyocytes *Frontiers in cell and developmental biology* 2022-01-03 [PMID: 35047492] (ICC/IF, WB, Rat)

Cruz Garcia Y Interactome of the beta 2b subunit of L-type voltage-gated calcium channels in cardiomyocytes Thesis 2021-01-01 (ICC/IF, WB)





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NBP1-86680PEP	CACNB2 Recombinant Protein Antigen
NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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