

Product Datasheet

CACNA2D1 Antibody (20A)

NB120-2864

Unit Size: 100 uL

Store at -20C. Avoid freeze-thaw cycles.

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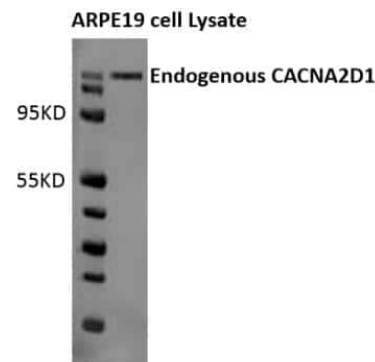


NB120-2864**CACNA2D1 Antibody (20A)**

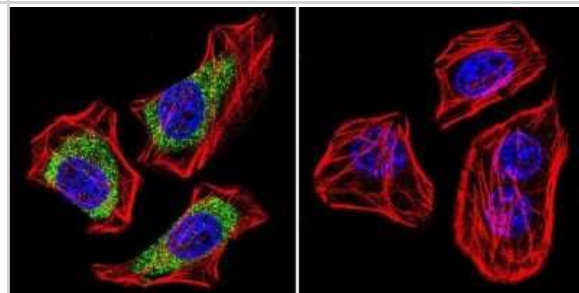
Product Information	
Unit Size	100 uL
Concentration	This product is unpurified. The exact concentration of antibody is not quantifiable.
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	20A
Preservative	0.05% Sodium Azide
Isotype	IgG2a
Purity	Unpurified
Buffer	Ascites
Product Description	
Description	Novus Biologicals Mouse CACNA2D1 Antibody (20A) (NB120-2864) is a monoclonal antibody validated for use in IHC, WB, Flow, ICC/IF and IP. Anti-CACNA2D1 Antibody: Cited in 10 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Mouse
Gene ID	781
Gene Symbol	CACNA2D1
Species	Human, Mouse, Rat, Porcine, Guinea Pig, Rabbit
Reactivity Notes	Porcine reactivity reported in scientific literature (PMID: 16938495). Please note that this antibody is reactive to Mouse and derived from the same host, Mouse. Additional Mouse on Mouse blocking steps may be required for IHC and ICC experiments. Please contact Technical Support for more information.
Specificity/Sensitivity	Detects 1,4-dihydropyridine (DHP) receptor alpha-2 subunit from skeletal and cardiac muscle. Detects a band at 220 kDa under non-reducing and a 143 kDa band under reducing conditions representing DHP from rabbit skeletal muscle membrane preparations. Immunohistochemical staining of DHP in rabbit skeletal muscle with NB120-2864 results in double rows of discrete punctate staining representing pairs of triads on the opposing sides of the Z-lines.
Immunogen	Purified rabbit dihydropyridine receptor.
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunoprecipitation
Recommended Dilutions	Western Blot 1:500, Flow Cytometry 1:100 - 1:200, Immunohistochemistry 1:500, Immunocytochemistry/ Immunofluorescence 1:250, Immunoprecipitation, Immunohistochemistry-Paraffin 1:500, Immunohistochemistry-Frozen 1:500
Application Notes	Use in immunoprecipitation reported in scientific literature (PMID: 8070639).

Images

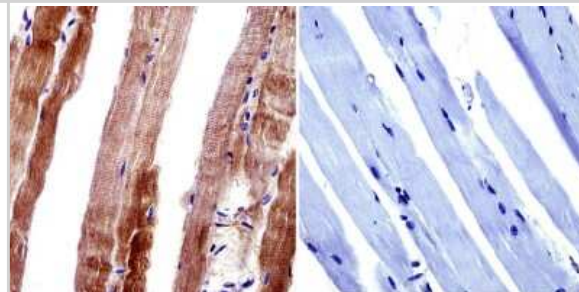
Western Blot: CACNA2D1 Antibody (20A) [NB120-2864] - Primary antibody dilution- 1:1000 for 2 Hours at RT, in blocking buffer, 5% Milk in TBS-0.05% Tween : Blocking Overnight at +4 degree C. Secondary antibody : 1:2000 in blocking buffer, 1 hour at RT. Image from verified customer review.



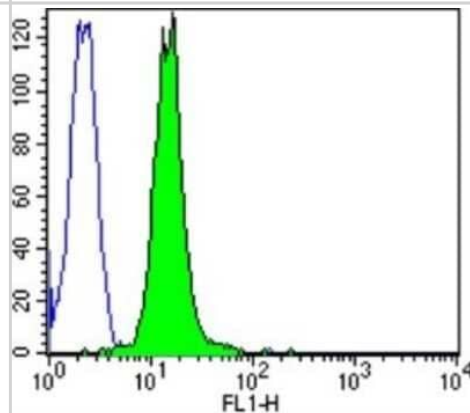
Immunocytochemistry/Immunofluorescence: CACNA2D1 Antibody (20A) [NB120-2864] - Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were probed without (control) or with a Dihydropyridine Receptor alpha-2 monoclonal antibody at a dilution of 1:100 overnight at 4 C, washed with PBS and incubated with a DyLight-488 conjugated secondary antibody and nuclei with DAPI (blue) is shown.



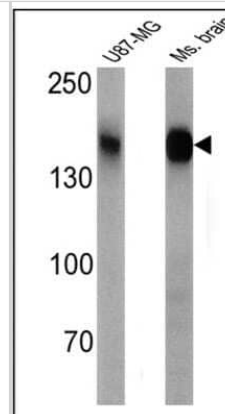
Immunohistochemistry-Paraffin: CACNA2D1 Antibody (20A) [NB120-2864] - Normal biopsies of deparaffinized mouse skeletal muscle tissue.



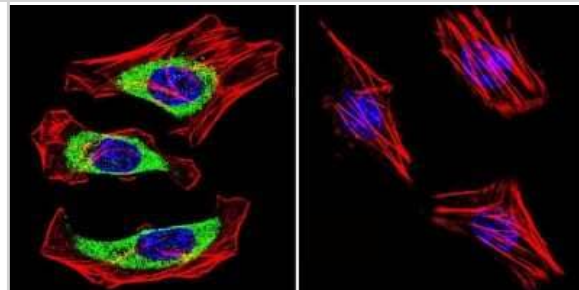
Flow Cytometry: CACNA2D1 Antibody (20A) [NB120-2864] - Analysis of C6 cells compared to an isotype control (blue).



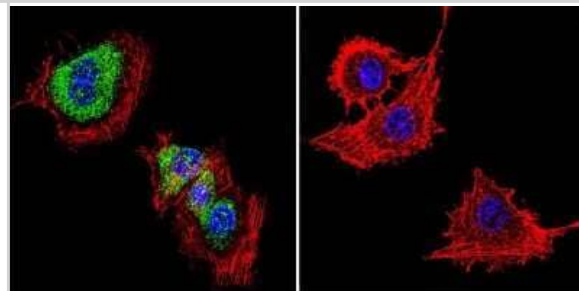
Western Blot: CACNA2D1 Antibody (20A) [NB120-2864] - Analysis of 25 ug of U87-MG (lane 1) and mouse brain (lane 2) cell lysates.



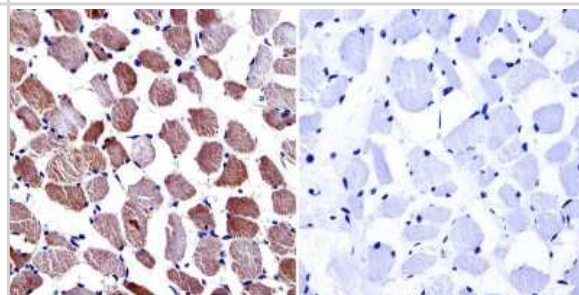
Immunocytochemistry/Immunofluorescence: CACNA2D1 Antibody (20A) [NB120-2864] - Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were probed without (control) or with a Dihydropyridine Receptor alpha-2 monoclonal antibody at a dilution of 1:100 overnight at 4 C, washed with PBS and incubated with a DyLight-488 conjugated secondary antibody and nuclei with DAPI (blue) is shown.



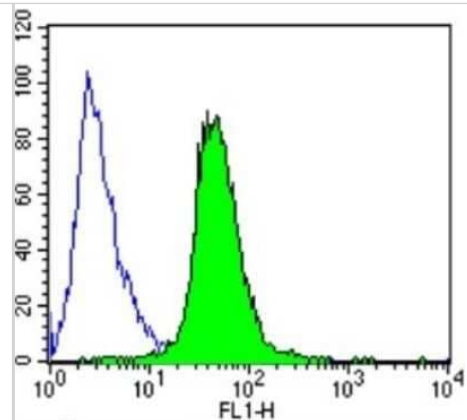
Immunocytochemistry/Immunofluorescence: CACNA2D1 Antibody (20A) [NB120-2864] - Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were probed without (control) or with a Dihydropyridine Receptor alpha-2 monoclonal antibody at a dilution of 1:20 overnight at 4 C, washed with PBS and incubated with a DyLight-488 conjugated secondary antibody and nuclei with DAPI (blue) is shown.



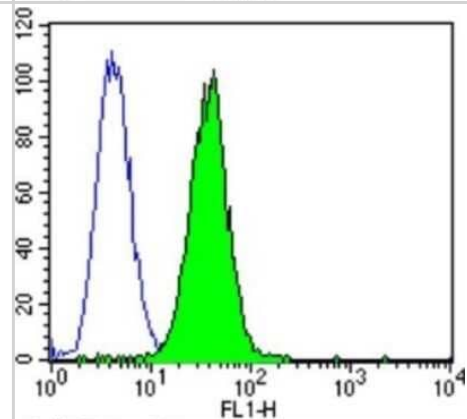
Immunohistochemistry-Paraffin: CACNA2D1 Antibody (20A) [NB120-2864] - Normal biopsies of deparaffinized human skeletal muscle tissue.



Flow Cytometry: CACNA2D1 Antibody (20A) [NB120-2864] - Analysis of SH-SY5Y cells compared to an isotype control (blue).



Flow Cytometry: CACNA2D1 Antibody (20A) [NB120-2864] - Analysis of Neuro-2a cells compared to an isotype control (blue).



Publications

Dalpian F, Rasia-Filho AA, Calcagnotto ME. Sexual dimorphism, estrous cycle and laterality determine the intrinsic and synaptic properties of medial amygdala neurons in rat. *Journal of cell science* 2020-06-11 [PMID: 30967401]

Liu J, Tao M, Zhao W et al. Calcium channel $\alpha 2$ delta 1 is essential for pancreatic tumor-initiating cells through sequential phosphorylation of PKM2 *Cellular and molecular gastroenterology and hepatology* 2022-10-13 [PMID: 36244646] (FLOW, Human)

Yu D, Holm R, Goscinski MA et al. Prognostic and clinicopathological significance of *Cacna2d1* expression in epithelial ovarian cancers: a retrospective study. *Am J Cancer Res* 2016-10-11 [PMID: 27725913]

Yang Y, Yang F, Yang F et al. Gabapentinoid Insensitivity after Repeated Administration is Associated with Down-Regulation of the $\alpha 2$ delta-1 Subunit in Rats with Central Post-Stroke Pain Hypersensitivity. *Neurosci Bull.* 2016-02-01 [PMID: 26781878] (ICC/IF, WB, Rat)

Horiuchi-Hirose M, Kashihara T, Nakada T et al. Decrease in the density of t-tubular L-type Ca^{2+} channel currents in failing ventricular myocytes. *Am J Physiol Heart Circ Physiol.* 2010-12-30 [PMID: 21193586] (WB, Mouse)

Tishkoff DX et al. Functional vitamin D receptor (VDR) in the t-tubules of cardiac myocytes: VDR knockout cardiomyocyte contractility. *Endocrinology*;149(2):558-64. 2008-02-01 [PMID: 17974622] (ICC/IF, Mouse)

Rasmussen HB et al. Subcellular localization of the delayed rectifier K^{+} channels *KCNQ1* and *ERG1* in the rat heart. *Am J Physiol Heart Circ Physiol*;286(4):H1300-9. 2004-04-01 [PMID: 14670813] (ICC/IF, Rat)

Morton ME et al. $\alpha 1$ and $\alpha 2$ Ca^{2+} channel subunit expression in human neuronal and small cell carcinoma cells. *FASEB J*;8(11):884-8. 1994-08-01 [PMID: 8070639] (IP, Human)

Flucher BE et al. Localization of the $\alpha 1$ and $\alpha 2$ subunits of the dihydropyridine receptor and ankyrin in skeletal muscle triads. *Neuron*;5(3):339-51. 1990-09-01 [PMID: 2169270] (IF/IHC, Mouse)

Protasi F et al. Role of ryanodine receptors in the assembly of calcium release units in skeletal muscle. *J Cell Biol* 140:831-42. 1998-01-01 [PMID: 9472035] (IF/IHC, Mouse)



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Products Related to NB120-2864

NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB7539	Goat anti-Mouse IgG (H+L) Secondary Antibody [HRP]
NBP1-96778	Mouse IgG2a Isotype Control (M2A)

Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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