

Product Datasheet

Calbindin D-28K Antibody - BSA Free NBP2-50028

Unit Size: 0.1 ml

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

www.novusbio.com



technical@novusbio.com

Reviews: 1 Publications: 20

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NBP2-50028

Updated 2/26/2026 v.20.1

**Earn rewards for product
reviews and publications.**

Submit a publication at www.novusbio.com/publications

Submit a review at www.novusbio.com/reviews/destination/NBP2-50028



NBP2-50028

Calbindin D-28K Antibody - BSA Free

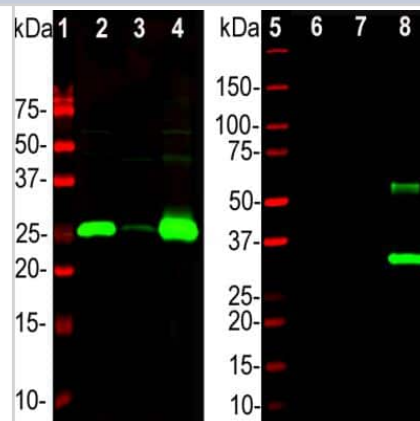
Product Information	
Unit Size	0.1 ml
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgY
Purity	IgY purified
Buffer	Supplied as a concentrated total IgY preparation from egg yolk, dialyzed against PBS with added preservative.
Target Molecular Weight	28 kDa

Product Description	
Description	<p>This antibody is supplied as a concentrated total IgY preparation derived from egg yolk. Production involves an initial organic extraction to remove lipids and lipoproteins, followed by salt fractionation of the aqueous phase to precipitate and enrich the IgY fraction. The material is then extensively dialyzed against PBS, and preservative is added during final formulation.</p> <p>Please note that the exact concentration of target-specific IgY cannot be determined, as the final preparation contains both antigen-specific IgY and non-immune IgY.</p>
Host	Chicken
Gene ID	793
Gene Symbol	CALB1
Species	Human, Mouse, Rat, Bovine
Reactivity Notes	Mouse reported from a verified customer review.
Immunogen	Full-length recombinant human Calbindin D-28K. [UniProt# P05937]
Notes	Chicken products cannot be exported to Canada.

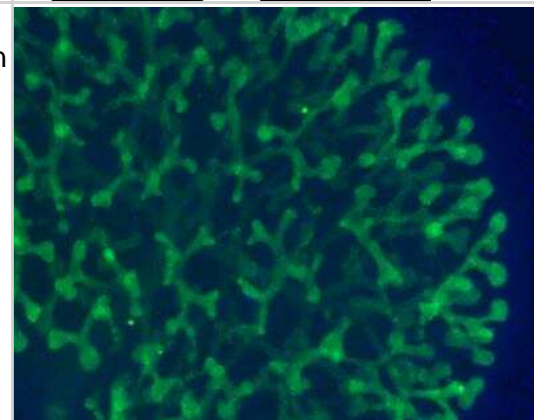
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry Free-Floating
Recommended Dilutions	Western Blot 1:1000 - 1:5000, Immunohistochemistry 1:1000 - 1:5000, Immunocytochemistry/ Immunofluorescence 1:1000 - 1:5000, Immunohistochemistry-Paraffin, Immunohistochemistry Free-Floating
Application Notes	In Western blot, this antibody recognizes a clear band at ~28 kDa in rat brain lysates which represents Calbindin and it reacts only with Calbindin protein, and not other calcium-binding proteins. A band maybe seen at ~60 kDa and is most likely the dimer of Calbindin. ICC/IF reported from a verified customer review. Use in Immunohistochemistry-paraffin reported in scientific literature (PMID: 29208685).

Images

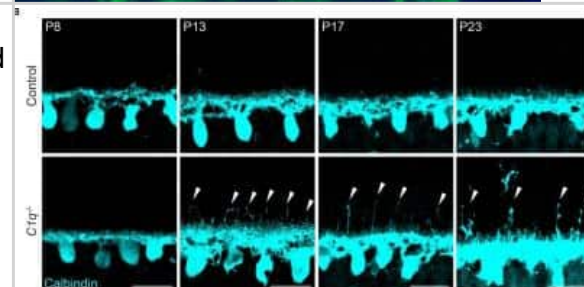
Western Blot: Calbindin D-28K Antibody [NBP2-50028] - Analysis of different tissue lysates and recombinant protein solutions using chicken pAb to calbindin, NBP2-50028, dilution 1:5,000 in green: [1] protein standard (red), [2] rat cerebellum, [3] pig hippocampus, [4] cow cerebellum, [5] protein standard (red). Next lanes are full length recombinant human proteins, [6] Parvalbumin, [7] Calretinin, [8] Calbindin. Bands at 25kDa in tissue lysates and ~30 kDa in protein solutions correspond to calbindin, the recombinant form being slightly larger due to the presence of a His tag and other vector derived sequence. NBP2-50028 antibody specifically recognizes calbindin protein and does not react with the closely related proteins parvalbumin and calretinin.



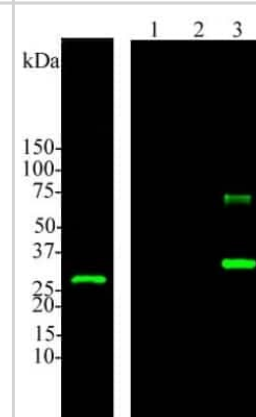
Immunocytochemistry/Immunofluorescence: Calbindin D-28K Antibody [NBP2-50028] - Cultured mouse embryonic kidney stained with Calbindin antibody (1:200) and DAPI. Image from verified customer review.



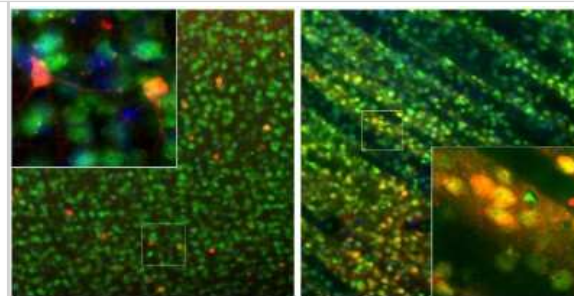
Immunohistochemistry: Calbindin D-28K Antibody [NBP2-50028] - Representative images of horizontal cells (Calbindin D-28K, cyan) in wild type control and C1q^{-/-} mice at P8, P13, P17, and P23. Horizontal cells in C1q^{-/-} mice fail to remain confined to the OPL, showing an increased number of ectopic neurites (arrowheads) that peak at P13 but remain present as development proceeds. These neurites extend into the outer nuclear layer and grow longer over time. Scale bars = 25 μ m. Image collected and cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/33177995/>) licensed under a CC-BY license.



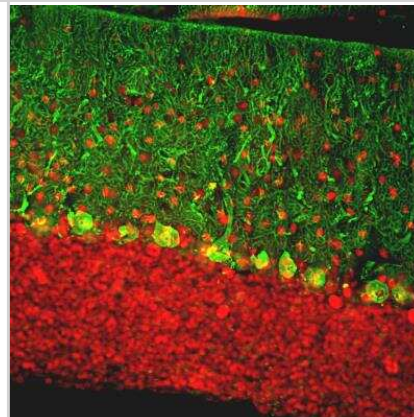
Western Blot: Calbindin D-28K Antibody [NBP2-50028] - Analysis of rat brain lysate (left), 0.5 μ g of His-tagged recombinant proteins (right) were probed with NBP2-50028 at 1:5,000. Lane 1: Parvalbumin, Lane 2: Calretinin, Lane 3: Calbindin.



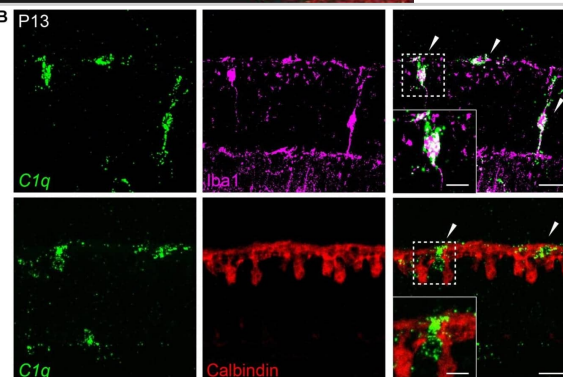
Immunocytochemistry/Immunofluorescence: Calbindin D-28K Antibody [NBP2-50028] - Adult rat brain cortex (Left) and striatum (Right) sections (45 μ M; fixed by transcardial perfusion with 4% paraformaldehyde) were stained with NBP2-50028 (1:1,000, red), and monoclonal mouse anti-RBFOX3/NeuN (NBP1-92693; green). Calbindin labels a subset of sparsely-distributed interneurons (calbindin-positive interneurons) in the cortex (Left), and more densely-distributed neurons in the striatum (Right). Since neurons also express RBFOX3/NeuN, calbindin-positive cells appear to be gold to yellow. Insets are high magnification images of boxed area of each image. Blue is Dapi nucleus staining.



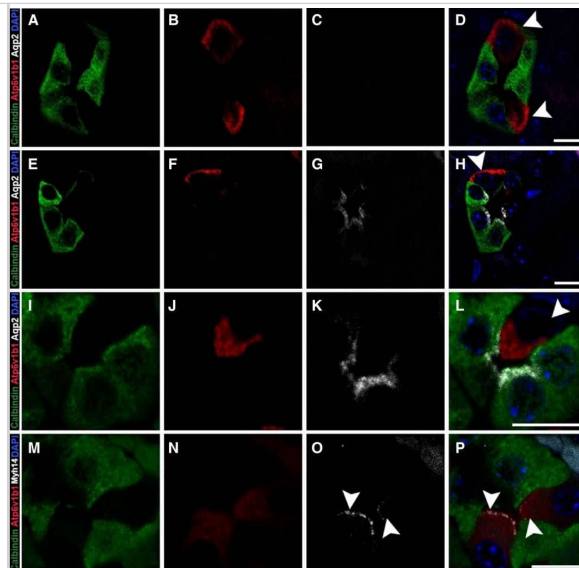
Immunohistochemistry Free-Floating: Calbindin D-28K Antibody [NBP2-50028] - Analysis of rat cerebellum section stained with chicken Calbindin D-28K pAb, dilution 1:2,000 (Green), and costained with rabbit MeCP2 pAb, dilution 1:5,000 (Red). Following transcardial perfusion with 4% paraformaldehyde, brain was post fixed for 24 hours, cut to 45 μ M, and free-floating sections were stained with above antibodies. Calbindin D-28K, often used as a Purkinje cell marker, is prominently detected in dendrites and perikarya of these cells in the cerebellar molecular layer. The MeCP2 antibody selectively stains nuclei of neuronal cells.



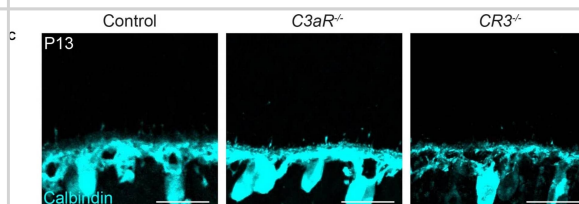
Immunohistochemistry: Calbindin D-28K Antibody [NBP2-50028] - C1q is expressed in retina microglia during development. (A) qRT-PCR for C1q at P9, P14, & 14 weeks. Values represent the fold mRNA expression level relative to the levels detected in adult animals following normalization to GAPDH. (B) Representative fluorescent in situ hybridization images at P13 of C1q (green) co-stained with either Iba1 (magenta) or calbindin (red) to label microglia & horizontal cells, respectively. C1q colocalizes with microglia but not with horizontal cells in the outer retina at this time (arrowheads). Inset shows C1q expression in Iba1-positive microglia that is absent in calbindin-positive horizontal cells. Scale bars = 25 & 10 μ m (inset). Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/33177995>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



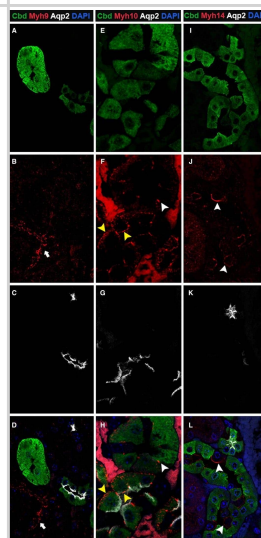
Immunocytochemistry/ Immunofluorescence: Calbindin D-28K Antibody [NBP2-50028] - Myh14 localizes to apical membranes of Atp6v1b1 positive intercalated cells in the distal tubule. Adult kidney sections were stained for calbindin D28K, Atp6v1b1, Aqp2, & Myh14 to identify intercalated cells within the distal & connecting tubule segments as well as to confirm Myh14 localization to the intercalated cell type. Cells with positive staining for Atp6v1b1 (red) can be found in tubule segments positive for calbindin D28K only (A–D) as well as in tubules positive for both calbindin D28K & Aqp2 (E–H); in both cases Atp6v1b1 staining is observed along the basolateral membrane indicating β intercalated cell type (arrowhead, D&H). We also observed Atp6v1b1 staining in majority of the tubules along the apical membrane indicating the α intercalated cell type (arrowhead, I–L). Myh14 localized to the apical membrane of the intercalated cell type in the distal tubule (arrowhead, M–P). Sections were mounted with vectashield containing DAPI to stain the nucleus (blue; D, H, L & P). Scale bar = 10 μ m. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/29208685>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunohistochemistry: Calbindin D-28K Antibody [NBP2-50028] - Horizontal cells develop normally with the loss of either C3aR or CR3. (A,B) qRT-PCR for complement proteins C3aR & CR3 at P6, P13, & adult in wild type mice. Values represent the fold mRNA expression level relative to the levels detected in control animals following normalization to GAPDH. N = 3 animals. Representative images of horizontal cells (C, anti-calbindin, cyan) & quantifications (D,E) of ectopic horizontal cell neurites in control & C3aR^{-/-} or CR3^{-/-} mice at P13. Horizontal cell neurites in C3aR^{-/-} & CR3^{-/-} mice remain confined to the OPL, showing no increase in the number (D) or length (E) of ectopic neurites (n = 52 sprouts from four control mice; n = 84 sprouts from four C3aR^{-/-} mice; n = 67 sprouts from four CR3^{-/-} mice). Scale bars = 25 μ m. Data are represented as the mean \pm SEM (D) or as beeswarm SuperPlots (E) in which individual horizontal cell sprout values are presented together with the mean from each animal \pm the SEM. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/33177995>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunocytochemistry/ Immunofluorescence: Calbindin D-28K Antibody [NBP2-50028] - Myh10 & Myh14 are the NM2 isoforms expressed in the distal & connecting renal tubules. Adult kidney sections were stained for calbindin D28K, Aqp2 & one of the NM2 isoforms. Myh9 (A–D) was not expressed in tubules positive for calbindin D28K & Aqp2; although adjacent tubules were positive for Myh9 (arrow). Myh10 (E–H) was expressed at low levels at the cell–cell junctions in calbindin D28K only positive tubules (white arrowhead), & in tubules positive for both calbindin D28K & Aqp2, Myh10 localized to cell–cell junctions, apical, & basolateral membrane (F & H, yellow arrowhead). Myh14 (I–L) was expressed on the apical membrane of calbindin D28K & Aqp2 null cells (arrowheads) in the distal tubular segments. Sections were mounted with vectashield containing DAPI to stain the nucleus (blue; D, H, & L). Scale bar = 10 μ m. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/29208685>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Shao F, Xue H, Chang B et al. TUBA8 promotes neuronal dendrite development through its 40th alanine. *Journal of Molecular Cell Biology* 2025-10-17 [PMID: 41105144]

Yuan Y, O'Malley H, Winters J et al. Ataxia and cerebellar hypoexcitability in a mouse model of SCN1B -linked Dravet syndrome *JCI insight* 2025-09-09 [PMID: 40923316]

Kim S, Babola T, Lee K et al. A consensus definition for deep layer 6 excitatory neurons in mouse somatosensory, visual, and motor cortex. *Cell reports* 2025-08-21 [PMID: 40844876]

Tolve M, Tutas J, Özer-Yildiz E et al. The endocytic adaptor AP-2 maintains Purkinje cell function by balancing cerebellar parallel and climbing fiber synapses. *Cell reports* 2025-02-06 [PMID: 39918958]

Wu J, Zhang Y, Mao S, Li W et al. Cross-species analysis and comparison of the inner ear between chickens and mice *J Comp Neurol* 2023-07-18 [PMID: 37462291]

Morikawa R, Rodrigues TM, Schreyer HM, Cowan CS et al. The sodium-bicarbonate cotransporter Slc4a5 mediates feedback at the first synapse of vision *Neuron* 2024-09-24 [PMID: 39317184]

Zhang L, Liu W, Wang HY et al. The temporal progression of retinal degeneration and early-stage idebenone treatment in the Pde6b(rd1/rd1) mouse model of retinal dystrophy *Sci Rep* 2024-01-23 [PMID: 38263197]

Matthias Ollivier, Joselyn S. Soto, Kay E. Linker, Stefanie L. Moye, Yasaman Jami-Alahmadi, Anthony E. Jones, Ajit S. Divakaruni, Riki Kawaguchi, James A. Wohlschlegel, Baljit S. Khakh Crym -positive striatal astrocytes gate perseverative behaviour *Nature* 2024-02-28 [PMID: 38418885]

KL Otterpohl, BW Busselman, I Ratnayake, RG Hart, K Hart, C Evans, CL Phillips, JR Beach, P Ahrenkiel, B Molitoris, K Surendran, I Chandrasek Conditional Myh9 and Myh10 inactivation in adult mouse renal epithelium results in progressive kidney disease *JCI Insight*, 2020-11-05;0(0):. 2020-11-05 [PMID: 33001861]

Chen TI, Hsu PC, Lee NC et al. Loss of Flot2 expression in deep cerebellar nuclei neurons of mice with Niemann-Pick disease type C *Heliyon* 2023-07-01 [PMID: 37539272] (IHC-Fr, Mouse)

Details:

1:1000 dilution

Jiang D, Burger CA, Akhanov V et al. Neuronal signal-regulatory protein alpha drives microglial phagocytosis by limiting microglial interaction with CD47 in the retina *Immunity* 2022-11-09 [PMID: 36379210] (IHC-Fr, Mouse)

Romano LEL, Aw WY, Hixson KM et al. Multi-omic profiling reveals the ataxia protein sacs1 is required for integrin trafficking and synaptic organization *Cell reports* 2022-11-01 [PMID: 36323248]

More publications at <http://www.novusbio.com/NBP2-50028>



Novus Biologicals USA

10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada

21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd

19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information

www.novusbio.com
Technical Support: nb-technical@bio-techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

Products Related to NBP2-50028

NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
BAF010	Goat anti-Chicken IgY Secondary Antibody [Biotin]
NB7276	Goat anti-Chicken IgM Heavy Chain Secondary Antibody
NBP1-30222	Recombinant Human Calbindin D-28K Protein

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.

For more information on our 100% guarantee, please visit www.novusbio.com/guarantee

Earn gift cards/discounts by submitting a review: www.novusbio.com/reviews/submit/NBP2-50028

Earn gift cards/discounts by submitting a publication using this product:
www.novusbio.com/publications

