Product Datasheet

Alkaline Phosphatase/ALPP Antibody (8B6) - BSA Free
NB110-3638

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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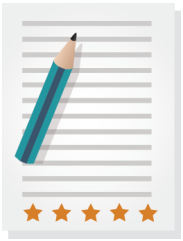
Updated 10/23/2024 v.20.1



NB110-3638

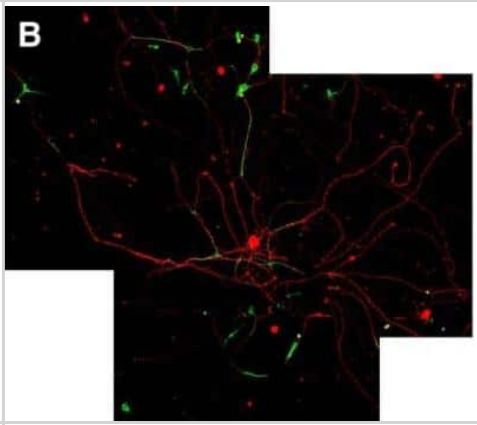
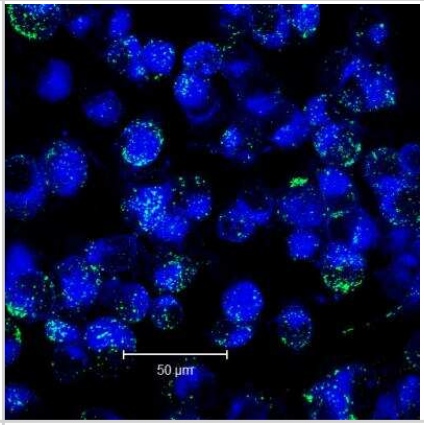
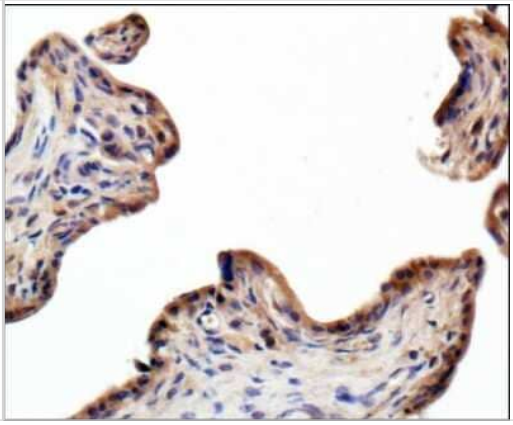
Alkaline Phosphatase/ALPP Antibody (8B6) - BSA Free

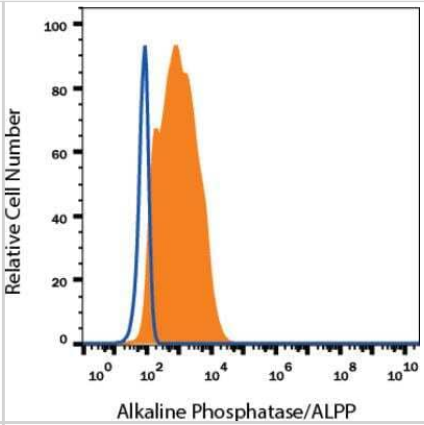
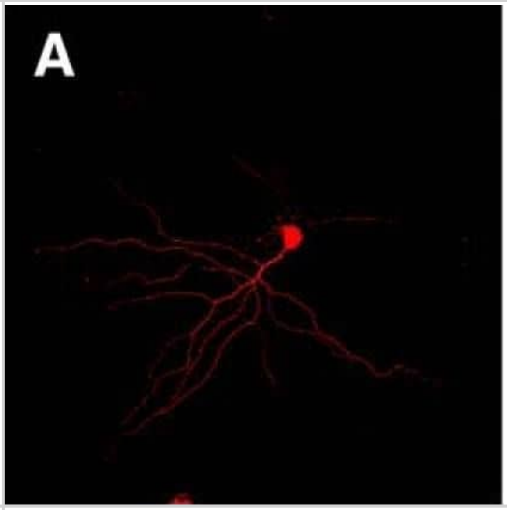
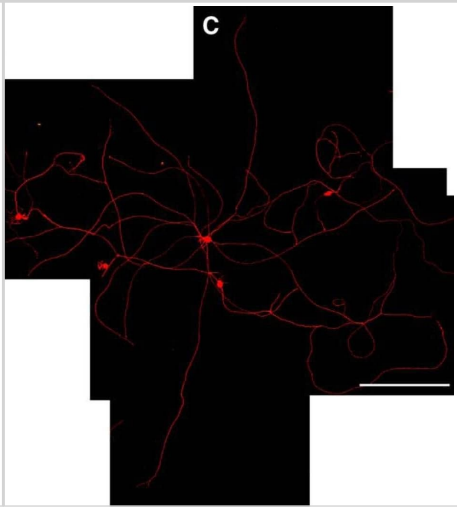
Product Information	
Unit Size	0.1 ml
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	8B6
Preservative	0.05% Sodium Azide
Isotype	IgG2a Kappa
Purity	Protein A purified
Buffer	PBS
Target Molecular Weight	70 kDa

Product Description	
Host	Mouse
Gene ID	250
Gene Symbol	ALPP
Species	Human, Mouse, Rat
Reactivity Notes	Mouse reactivity reported in scientific literature (PMID: 28197547). Rat reactivity reported in scientific literature (PMID: 30599898).
Specificity/Sensitivity	Alkaline Phosphatase, Placental - both Regan and Nagao isoenzymes. No cross reactivity with other isoenzymes of Alkaline Phosphatase.
Immunogen	Hep-2 cells with boosted surface expression of Alkaline Phosphatase, Placental. [UniProt# P05187].

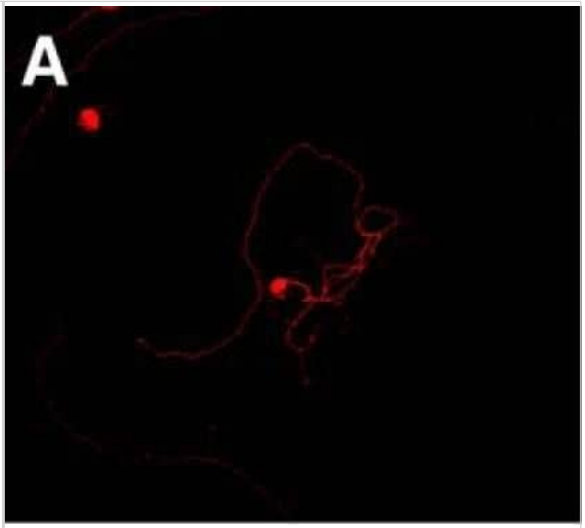
Product Application Details	
Applications	Western Blot, ELISA, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Radioimmunodiffusion
Recommended Dilutions	Western Blot 1:1000, Flow Cytometry reported in multiple pieces of scientific literature, ELISA 1:100-1:2000, Immunohistochemistry 1:10-1:500, Immunocytochemistry/ Immunofluorescence 1:10-1:500, Immunohistochemistry-Paraffin 1:100-1:200, Immunohistochemistry-Frozen 1:10-1:500, Radioimmunodiffusion
Application Notes	In WB a band can be seen at ~70 kDa. For IHC, Proteolytic Induced Epitope Retrieval (PIER) is required.

Images

Immunocytochemistry/Immunofluorescence: Alkaline Phosphatase/ALPP Antibody (8B6) [NB110-3638] - Representative montage images are shown for control dissociated DRG culture. (B) Dissociated DRGs cultures exposed to conditioned medium from alkaline phosphatase-expressing rat GRPs. Image collected and cropped by CiteAb from the following publication (eneuro.org/content/4/1/ENEURO.0171-16.2017), licensed under a CC-BY license.	
Immunocytochemistry/Immunofluorescence: Alkaline Phosphatase/ALPP Antibody (8B6) [NB110-3638] - analysis of ALPP in MDA-MB-231 cells using an anti-ALPP antibody (blue - cell membrane, green - ALPP). Image from verified customer review.	
Western Blot: Alkaline Phosphatase/ALPP Antibody (8B6) [NB110-3638] - Analysis of Alkaline Phosphatase (Placental) expression in JAR whole cell lysate.	
Immunohistochemistry-Paraffin: Alkaline Phosphatase/ALPP Antibody (8B6) [NB110-3638] - Alkaline Phosphatase, Placental Antibody (8B6) [NB110-3638] - IHC staining of Alkaline Phosphatase (Placental) in human placenta using DAB with hematoxylin counterstain. Proteolytic Induced Epitope Retrieval (PIER) was used.	

Flow Cytometry: Alkaline Phosphatase/ALPP Antibody (8B6) [NB110-3638] - Detection of Alkaline Phosphatase/ALPP in Human HeLa Cell Line by Flow Cytometry. Human HeLa cell line was stained with Mouse Anti- Alkaline Phosphatase/ALPP Monoclonal Antibody (Catalog # NB110-3638, filled histogram), or Mouse IgG2A isotype control (Catalog # MAB003, open histogram) followed by APC-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0101B). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005). Images may not be copied, printed or otherwise disseminated without express written permission of Novus Biologicals a bio-techne brand.	
Immunocytochemistry/ Immunofluorescence: Alkaline Phosphatase/ALPP Antibody (8B6) - BSA Free [NB110-3638] - GRPs enhance axonal growth in DRGs in vitro. A–C, Representative montage images are shown for control dissociated DRG culture (A), dissociated DRGs cocultured with rat GRPs (B), & dissociated DRGs cultures exposed to conditioned medium from alkaline phosphatase-expressing rat GRPs (C). βIII-tubulin (red) immunofluorescence highlights the neurons; GRPs are visualized by immunostaining for alkaline phosphatase (green). D shows quantification for the average length of the longest axon per neuron ± SEM (n ≥ 30 neurons in three separate experiments; **p ≤ 0.01 by Student's t test). Scale bar, 250 µm. Image collected & cropped by CiteAb from the following publication (https://www.eneuro.org/lookup/doi/10.1523/ENEURO.0171-16.2017), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	
Immunocytochemistry/ Immunofluorescence: Alkaline Phosphatase/ALPP Antibody (8B6) - BSA Free [NB110-3638] - GRPs enhance axonal growth in DRGs in vitro. A–C, Representative montage images are shown for control dissociated DRG culture (A), dissociated DRGs cocultured with rat GRPs (B), & dissociated DRGs cultures exposed to conditioned medium from alkaline phosphatase-expressing rat GRPs (C). βIII-tubulin (red) immunofluorescence highlights the neurons; GRPs are visualized by immunostaining for alkaline phosphatase (green). D shows quantification for the average length of the longest axon per neuron ± SEM (n ≥ 30 neurons in three separate experiments; **p ≤ 0.01 by Student's t test). Scale bar, 250 µm. Image collected & cropped by CiteAb from the following publication (https://www.eneuro.org/lookup/doi/10.1523/ENEURO.0171-16.2017), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	

Immunocytochemistry/ Immunofluorescence: Alkaline Phosphatase/ALPP Antibody (8B6) - BSA Free [NB110-3638] - Coculture with neural & glial progenitor cells increases axonal outgrowth from adult DRG neurons. A–C, Representative montage images of control-dissociated DRG cultures (A), dissociated DRGs cocultured with rat GRPs/NRPs (B), & dissociated DRG cultures exposed to conditioned medium from parallel rat GRP/NRP cultures (C) are shown. Immunofluorescence for βIII-tubulin (red) & nestin (green) highlight DRG neurons & GRP/NRP nuclei, respectively. D, Quantitation of the average lengths of the longest axon per neuron (±SEM) for the above conditions is shown. Coculture with GRPs/NRPs significantly increases in axon length compared with the standard DRG culture; exposure to conditioned medium from GRP/NRP cultures showed a further increase in axon length (n ≥ 30 neurons in three separate experiments; *p ≤ 0.05 & ***p ≤ 0.001 by Student's t test). Scale bar, 250 μm. E, Quantitation of axon growth parameters for 7 d injury-conditioned DRG neurons cultured on coverslips laid over a bed of GRP/NRP cells (coculture) or control conditions is shown (n ≥ 200 neurons analyzed in three separate experiments; p values represent ANOVA with Tukey post hoc analyses). Image collected & cropped by CiteAb from the following publication (https://www.eneuro.org/lookup/doi/10.1523/ENEURO.0171-16.2017), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



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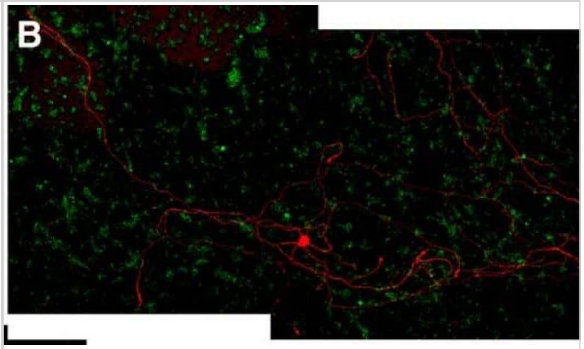

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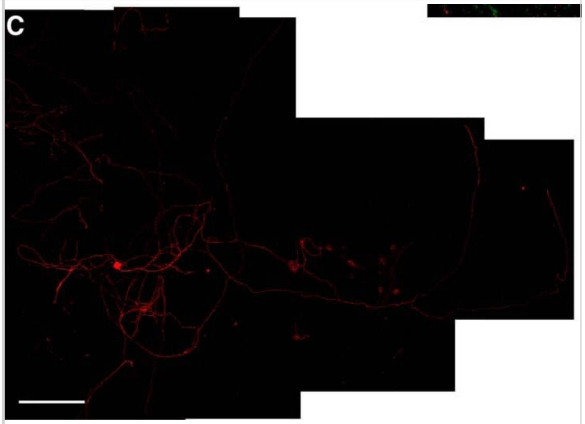

Publications

Chen Y, Hong M, Xu H et al. EGFR inhibition in lung adenocarcinoma upregulates cell surface expression of the placental antigen ALPP and enhances efficacy of ALPP-ADC therapy bioRxiv 2023-03-29 (ICC/IF, WB)

Qiu M, Li C, Cai Z et al. 3D Biomimetic Calcified Cartilaginous Callus that Induces Type H Vessels Formation and Osteoclastogenesis Advanced science (Weinheim, Baden-Wurttemberg, Germany) 2023-03-31 [PMID: 36999832] (IHC-P, Rat)

Ontawong A, Duangjai A, Srimaroeng C Coffea arabica bean extract inhibits glucose transport and disaccharidase activity in Caco 2 cells Biomed Rep 2021-08-18 [PMID: 34405045]

Chan YH, Ho KN, Lee YC et al. Melatonin enhances osteogenic differentiation of dental pulp mesenchymal stem cells by regulating MAPK pathways and promotes the efficiency of bone regeneration in calvarial bone defects Stem cell research & therapy 2022-02-19 [PMID: 35183254] (WB)

Kim J, Singh A, DelPoeta M et al. The effect of sterol structure upon clathrin-mediated and clathrin-independent endocytosis. J Cell Sci. [PMID: 28655854] (Human)

Ontawong A, Duangjai A, Muanprasat C et al. Lipid-lowering effects of Coffea arabica pulp aqueous extract in Caco-2 cells and hypercholesterolemic rats. Phytomedicine 2018-06-01 [PMID: 30599898] (WB, Human, Rat)

Goulao M, Ghosh B, Urban MW et al. Astrocyte progenitor transplantation promotes regeneration of bulbospinal respiratory axons, recovery of diaphragm function, and a reduced macrophage response following cervical spinal cord injury Glia 2018-12-11 [PMID: 30548313] (IF/IHC, Human)

Merianda TT, Jin Y, Kalinski AL et al. Neural Progenitor Cells Promote Axonal Growth and Alter Axonal mRNA Localization in Adult Neurons. eNeuro. 2017-02-15 [PMID: 28197547] (ICC/IF, Mouse)

Kiem HP, Andrews RG, Morris J et al. Improved gene transfer into baboon marrow repopulating cells using recombinant human fibronectin fragment CH-296 in combination with interleukin-6, stem cell factor, FLT-3 ligand, and megakaryocyte growth and development factor. Blood. 1998-09-15 [PMID: 9731044] (FLOW)

Roberts SB, Ripellino JA, Ingalls KM et al. Non-amyloidogenic cleavage of the beta-amyloid precursor protein by an integral membrane metalloendopeptidase. J Biol Chem. 1994-01-28 [PMID: 8300647] (WB, Human)

Leitner K, Szlauer R, Ellinger I et al. Placental alkaline phosphatase expression at the apical and basal plasma membrane in term villous trophoblasts. J Histochem Cytochem. 2001-09-01 [PMID: 11511684] (IHC-Fr, ICC/IF, Human)

Kesson AM, Fear WR, Williams L et al. HIV infection of placental macrophages: their potential role in vertical transmission. J Leukoc Biol. 1994-09-01 [PMID: 8083596] (IHC-Fr, Human)

More publications at http://www.novusbio.com/NB110-3638

Procedures

Immunohistochemistry-Paraffin Protocol for Alkaline Phosphatase, Placental Antibody (8B6) (NB110-3638)

Antigen Unmasking - Proteolytic Induced Epitope Retrieval (PIER):

Trypsin Working Solution (0.05%):

Trypsin stock solution (0.5%) -1 ml
Calcium chloride stock solution 1% - 1 ml Distilled Water - 8 ml Adjust pH to 7.8 with 1N NaOH.

Cover sections with trypsin working solution and incubate for 10-20 minutes at 37 degrees Celsius in humidified chamber (optimal incubation time may vary depending on tissue type and degree of fixation, and should be determined by user). Allow sections to cool at room temperature for 10 minutes.

Staining:
1. Wash sections in deionized water three times for 5 minutes each.
2. Wash sections in wash buffer for 5 minutes.
3. Block each section with 100-400 ul blocking solution for 1 hour at room temperature.
4. Remove blocking solution and add 100-400 ul diluted primary antibody. Incubate overnight at 4 C.
5. Remove antibody solution and wash sections in wash buffer three times for 5 minutes each.
6. Add 100-400 ul biotinylated diluted secondary antibody. Incubate 30 minutes at room temperature.
7. Remove secondary antibody solution and wash sections three times with wash buffer for 5 minutes each.
8. Add 100-400 ul Streptavidin-HRP reagent to each section and incubate for 30 minutes at room temperature.
9. Wash sections three times in wash buffer for 5 minutes each.
10. Add 100-400 ul DAB substrate to each section and monitor staining closely.
11. As soon as the sections develop, immerse slides in deionized water.
12. Counterstain sections in hematoxylin.
13. Wash sections in deionized water two times for 5 minutes each.
14. Dehydrate sections.
15. Mount coverslips.

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Products Related to NB110-3638

HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-96981-0.5mg	Mouse IgG2a Kappa Isotype Control (M2AK)
NB110-3638F	Alkaline Phosphatase/ALPP Antibody (8B6) [FITC]

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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