# **Product Datasheet**

# Pax6 Antibody NB300-750

Unit Size: 100 ug

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

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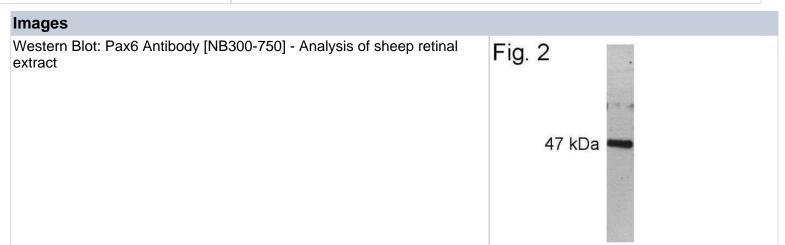
## NB300-750

Pax6 Antibody

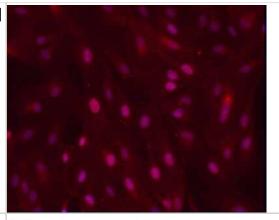
Product Information			
Unit Size	100 ug		
Concentration	1 mg/ml		
Storage	Store at -20C. Avoid freeze-thaw cycles.		
Clonality	Polyclonal		
Preservative	0.05% Sodium Azide		
Isotype	IgG		
Purity	Immunogen affinity purified		
Buffer	PBS with 1 mg/ml BSA		
Target Molecular Weight	47 kDa		

<b>Product Description</b>	
Host	Rabbit
Gene ID	5080
Gene Symbol	PAX6
Species	Human, Mouse, Rat, Fish, Primate, Monkey, Sheep
Reactivity Notes	Fish reactivity reported in scientific literature (PMID: 29888788).
Marker	Neural Marker
Specificity/Sensitivity	Detects a ~47 kDa protein representing PAX6 (Schwann Cell Marker) from rat whole eye extracts and ovine retinal extracts.
Immunogen	Synthetic peptide corresponding to residues C R(267) E E K L R N Q R R Q A S N T P S H I(285) of mouse PAX6.

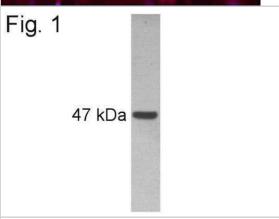
<b>Product Application Details</b>	
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunoprecipitation
Recommended Dilutions	Western Blot 1:1000, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence 1:50, Immunoprecipitation 5 ug
Application Notes	Use in Immunohistochemistry reported in scientific literature (PMID: 22837015).



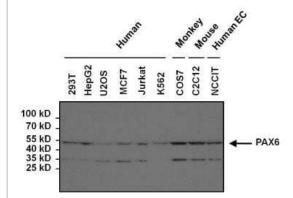
Immunocytochemistry/Immunofluorescence: Pax6 Antibody [NB300-750] - ARPE-19 monolayer on glass substrate. Fixative Methanol Blocking Goat Serum. Dilution 1:100. Incubation 1h @ RT. This image was submitted via customer Review.



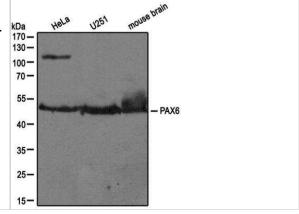
Western Blot: Pax6 Antibody [NB300-750] - Analysis of rat whole eye extract



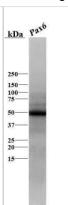
Western Blot: Pax6 Antibody [NB300-750] - Analysis of various human, mouse and non-human primate whole cell lysates.



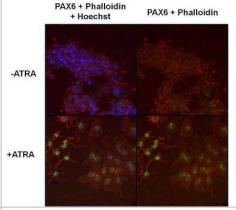
Western Blot: Pax6 Antibody [NB300-750] - Analysis of extracts from HeLa, U251 and mouse brain using PAX6 antibody (NB300-750, 1:100).



Western Blot: Pax6 Antibody [NB300-750] - Analysis of Pax6 in skate (Leucoraja erinacea) brain lysate using anti-Pax6 antibody. Image from verified customer review.

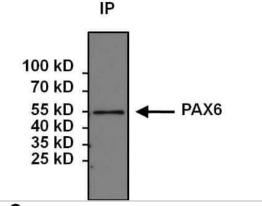


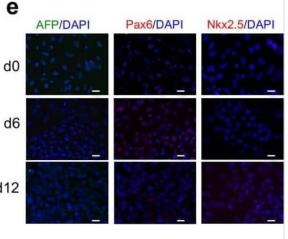
Immunocytochemistry/Immunofluorescence: Pax6 Antibody [NB300-750] - Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 1% Blocker BSA for 15 minutes at room temperature. Cells were probed with a PAX6 polyclonal antibody at a dilution of 1:400 for 30 minutes at room temperature. F-Actin (red) was stained with DyLight 554 Phalloidin were stained with Hoechst 33342 dye.



Immunoprecipitation: Pax6 Antibody [NB300-750] - Analysis of PAX6 was performed on 293T cells. Antigen: antibody complexes were formed by incubating 500ug whole cell lysate with 5ug of PAX6 polyclonal antibody overnight on a rocking platform at 4C. The immune complexes were captured on 50ul Protein A/G Plus Agarose, washed extensively, and eluted with 5X Lane Marker Reducing Sample Buffer. Samples were resolved on a 4-20% Tris-HCl polyacrylamide gel, transferred to a PVDF membrane, and blocked with 5% BSA/TBS-0.1%Tween for at least 1 hour. The membrane was probed with a PAX6 monoclonal antibody at a dilution of 1:1000 overnight rotating at 4C, washed in TBST, and probed with Clean-Blot IP Detection Reagent at a dilution of 1:1000 for at least one hour.

Immunocytochemistry/ Immunofluorescence: Pax6 Antibody [NB300-750] - Stepwise differentiation of human iPSCs towards renal progenitor cells (RPCs).(a) Schematic description of the two-stage protocol applied to iPSC-renal commitment. (b, c, d, e) Immunofluorescence of iPSCs (derived from retroviral transfected dermal fibroblasts) exposed to differentiating media. (b) The pluripotency markers SSEA4, TRA-1-81, Nanog, ME marker T(Bry) & IM marker Osr1. (c) IM & MM marker expression as Wt1, Pax8, Pax2, Six2 & Sall1. (d) Renal progenitor markers CD133, CD24, NCAM, glomerular epithelial marker Claudin1 & proximal tubular epithelial markers AQP1, GGT1. (e) Markers identifying endodermal AFP, ectodermal Pax6, & cardiac mesodermal Nkx2.5 derivation. Nuclei are stained with DAPI (blue). Scale bars: 20 µm (b, c, d, e). Image collected & cropped by CiteAb from the following publication (https://www.nature.com/articles/srep08826), licensed under a CC-BY license. Not internally tested by Novus Biologicals.





#### **Publications**

Robles DA, Boreland AJ, Pang ZP, Zahn JD A Cerebral Organoid Connectivity Apparatus to Model Neuronal Tract Circuitry Micromachines 2021-12-17 [PMID: 34945423] (IF/IHC, Human)

Suriano CM. Developmental Evidence for the Evolutionary Relationship of Cerebellum and Cerebellum-like Structures in an Elasmobranch Fish. Thesis. 2018-01-01 (WB)

Suriano CM, Bodznick D. Evidence for generative homology of cerebellum and cerebellum-like structures in an elasmobranch fish based on Pax6, Cbln1 and Grid2 expression J. Comp. Neurol. 2018-06-11 [PMID: 29888788] (Fish)

Imberti B, Tomasoni S, Ciampi O et al. Renal progenitors derived from human iPSCs engraft and restore function in a mouse model of acute kidney injury Sci Rep 2015-03-06 [PMID: 25744951] (ICC/IF, Human)

Pacal M, Bremner R. Mapping differentiation kinetics in the mouse retina reveals an extensive period of cell cycle protein expression in post-mitotic newborn neurons Dev Dyn 2012-10-01 [PMID: 22837015] (ICC/IF, IF/IHC, Mouse)





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### **Products Related to NB300-750**

HAF008 Goat anti-Rabbit IgG Secondary Antibody [HRP]

NB7160 Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]

NBP2-24891 Rabbit IgG Isotype Control

H00005080-P01-10ug Recombinant Human Pax6 GST (N-Term) 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.

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