


## Product datasheet

# Anti-NDP antibody ab90690

[2 Images](#)

### Overview

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<b>Product name</b>	Anti-NDP antibody
<b>Description</b>	Rabbit polyclonal to NDP
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse, Rat, Rabbit, Horse, Chicken, Guinea pig, Cow, Cat, Dog, Pig 
<b>Immunogen</b>	A synthetic peptide corresponding to a region within internal sequence amino acids 36 - 85 (PRRCMRHHYV DSISHPLYKC SSKMVLLARC EGHCSQASRS EPLVSFSTVL) of Human NDP (NP_000257). <a href="#">Run BLAST with ExPASy</a> <a href="#">Run BLAST with NCBI</a>
<b>Positive control</b>	Human fetal liver lysate

### Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
<b>Storage buffer</b>	Preservative: 0.09% Sodium azide Constituents: PBS, 2% Sucrose
<b>Purity</b>	Immunogen affinity purified
<b>Purification notes</b>	Purified by peptide affinity chromatography method.
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

### Applications

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Our [Abpromise guarantee](#) covers the use of **ab90690** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		Use a concentration of 5 µg/ml.
WB		Use a concentration of 1 µg/ml. Predicted molecular weight: 15 kDa. Good results were obtained when blocked with 5% non-fat dry milk in 0.05% PBS-T.

## Target

### Function

Activates the canonical Wnt signaling pathway through FZD4 and LRP5 coreceptor. Plays a central role in retinal vascularization by acting as a ligand for FZD4 that signals via stabilizing beta-catenin (CTNNB1) and activating LEF/TCF-mediated transcriptional programs. Acts in concert with TSPAN12 to activate FZD4 independently of the Wnt-dependent activation of FZD4, suggesting the existence of a Wnt-independent signaling that also promote accumulation the beta-catenin (CTNNB1). May be involved in a pathway that regulates neural cell differentiation and proliferation. Possible role in neuroectodermal cell-cell interaction.

### Tissue specificity

Expressed in the outer nuclear, inner nuclear and ganglion cell layers of the retina, and in fetal and adult brain.

### Involvement in disease

Defects in NDP are the cause of Norrie disease (ND) [MIM:310600]; also known as atrophía bulborum hereditaria or Episkopi blindness. ND is a recessive disorder characterized by very early childhood blindness due to degenerative and proliferative changes of the neuroretina. Approximately 50% of patients show some form of progressive mental disorder, often with psychotic features, and about one-third of patients develop sensorineural deafness in the second decade. In addition, some patients have more complex phenotypes, including growth failure and seizure.

Defects in NDP are the cause of vitreoretinopathy exudative type 2 (EVR2) [MIM:305390]. EVR2 is a disorder of the retinal vasculature characterized by an abrupt cessation of growth of peripheral capillaries, leading to an avascular peripheral retina. This may lead to compensatory retinal neovascularization, which is thought to be induced by hypoxia from the initial avascular insult. New vessels are prone to leakage and rupture causing exudates and bleeding, followed by scarring, retinal detachment and blindness. Clinical features can be highly variable, even within the same family. Patients with mild forms of the disease are asymptomatic, and their only disease related abnormality is an arc of avascular retina in the extreme temporal periphery.

### Sequence similarities

Contains 1 CTCK (C-terminal cystine knot-like) domain.

### Cellular localization

Secreted.

## Images

60 kDa\_\_  
40 kDa\_\_  
31 kDa\_\_  
22 kDa\_\_  
10 kDa\_\_



Western blot - Anti-NDP antibody (ab90690)

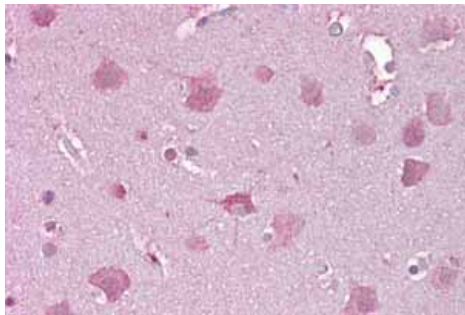
Anti-NDP antibody (ab90690) at 1  $\mu$ g/ml (in 5% skim milk / PBS buffer) + Human fetal liver lysate at 10  $\mu$ g

#### Secondary

HRP conjugated anti-Rabbit IgG at 1/50000 dilution

**Predicted band size:** 15 kDa

Gel concentration: 10-20%



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NDP antibody (ab90690)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human brain, cortex tissue labelling NDP with ab90690 at 5 $\mu$ g/ml.

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