

## Product datasheet

# Anti-Frizzled 4 antibody ab83042

★★★★★ [5 Abreviews](#) [15 References](#) [4 Images](#)

### Overview

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<b>Product name</b>	Anti-Frizzled 4 antibody
<b>Description</b>	Rabbit polyclonal to Frizzled 4
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Human <b>Predicted to work with:</b> Chicken, Guinea pig, Cow, Cat 
<b>Immunogen</b>	Synthetic peptide corresponding to Human Frizzled 4 aa 488-537 (internal sequence). Sequence: GTSGMWIWSAKLHTWQKCSNRLVNSGKVKREKRGNG WVKPGKGSETVV

Database link: [NP\\_036325](#)

 [Run BLAST with](#)

 [Run BLAST with](#)

### General notes

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

### 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. Avoid freeze / thaw cycles.
<b>Storage buffer</b>	pH: 7.2 Preservative: 0.09% Sodium azide Constituents: 2% Sucrose, PBS
<b>Purity</b>	Immunogen affinity purified
<b>Purification notes</b>	Purified by peptide affinity chromatography method.
<b>Clonality</b>	Polyclonal

Isotype

IgG

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab83042 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	★★★★★ (4)	Use a concentration of 4 - 8 µg/ml.
WB	★★★☆☆ (1)	Use a concentration of 1 µg/ml. Predicted molecular weight: 60 kDa. Good results were obtained when blocked with 5% non-fat dry milk in 0.05% PBS-T.

## Target

### Function

Receptor for Wnt proteins. Most of frizzled receptors are coupled to the beta-catenin (CTNNB1) canonical signaling pathway, which leads to the activation of disheveled proteins, inhibition of GSK-3 kinase, nuclear accumulation of beta-catenin (CTNNB1) and activation of Wnt target genes. Plays a critical role in retinal vascularization by acting as a receptor for Wnt proteins and norrin (NDP). In retina, it can be both activated by Wnt protein-binding, but also by a Wnt-independent signaling via binding of norrin (NDP), promoting in both cases beta-catenin (CTNNB1) accumulation and stimulation of LEF/TCF-mediated transcriptional programs. A second signaling pathway involving PKC and calcium fluxes has been seen for some family members, but it is not yet clear if it represents a distinct pathway or if it can be integrated in the canonical pathway, as PKC seems to be required for Wnt-mediated inactivation of GSK-3 kinase. Both pathways seem to involve interactions with G-proteins. May be involved in transduction and intercellular transmission of polarity information during tissue morphogenesis and/or in differentiated tissues.

### Tissue specificity

Almost ubiquitous. Largely expressed in adult heart, skeletal muscle, ovary, and fetal kidney. Moderate amounts in adult liver, kidney, pancreas, spleen, and fetal lung, and small amounts in placenta, adult lung, prostate, testis, colon, fetal brain and liver.

### Involvement in disease

Defects in FZD4 are the cause of vitreoretinopathy exudative type 1 (EVR1) [MIM:133780]; also known as autosomal dominant familial exudative vitreoretinopathy (FEVR) or Criswick-Schepens syndrome. EVR1 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.

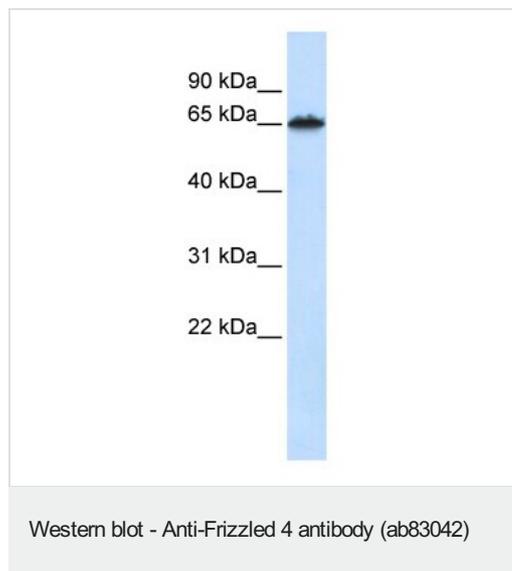
### Sequence similarities

Belongs to the G-protein coupled receptor Fz/Smo family.  
Contains 1 FZ (frizzled) domain.

### Domain

Lys-Thr-X-X-X-Trp motif interacts with the PDZ domain of Dvl (Disheveled) family members and is involved in the activation of the Wnt/beta-catenin signaling pathway.  
The FZ domain is involved in binding with Wnt ligands.

## Images



Anti-Frizzled 4 antibody (ab83042) at 1 µg/ml + fetal liver lysate at 10 µg

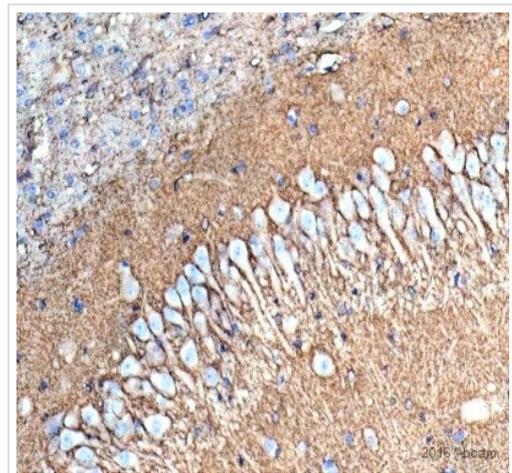
**Secondary**

HRP conjugated anti-Rabbit IgG at 1/50000 dilution

**Predicted band size:** 60 kDa

**Observed band size:** 65 kDa

Gel concentration 12%



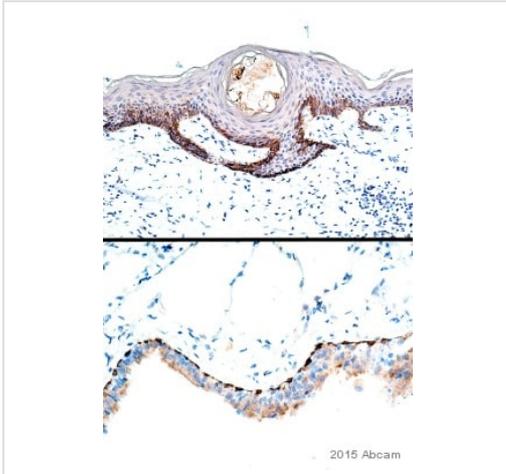
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Frizzled 4 antibody (ab83042)

This image is courtesy of an Abreview by Carl Hobbs.

ab83042 staining Frizzled 4 in rat brain tissue sections by Immunohistochemistry (IHC-P - formaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 2% BSA for 10 minutes at 21°C; antigen retrieval was by heat mediation in a citrate buffer. Samples were incubated with primary antibody (1/10000 in TBS/BSA/azide) for 2 hours at 21°C. A Biotin-conjugated goat anti-rabbit IgG polyclonal (1/300) was used as the secondary antibody.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Frizzled 4 antibody (ab83042)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human skin tissue labelling Frizzled 4 with ab83042 at 4-8µg/ml.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Frizzled 4 antibody (ab83042)

This image is courtesy of an Abreview submitted by Carl Hobbs

ab83042 staining Frizzled 4 in human epithelium tissue sections (top image - skin, bottom image - bronchiolar epithelium) by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 1% BSA for 10 minutes at 21°C; antigen retrieval was by heat mediation in citric acid. Samples were incubated with primary antibody (1/6000 in TBS/BSA/azide) for 2 hours at 21°C. A Biotin-conjugated goat anti-rabbit IgG polyclonal (1/300) was used as the secondary antibody.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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