

Goat Anti-Frizzled 4 Antibody
Peptide-affinity purified goat antibody
Catalog # AF1443a**Specification**

Goat Anti-Frizzled 4 Antibody - Product Information

Application	WB
Primary Accession	O9ULV1
Other Accession	NP_036325 , 8322 , 64558 (rat)
Reactivity	Human
Predicted	Rat
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	59881

Goat Anti-Frizzled 4 Antibody - Additional Information**Gene ID** 8322**Other Names**

Frizzled-4, Fz-4, hFz4, FzE4, CD344, FZD4

Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Goat Anti-Frizzled 4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-Frizzled 4 Antibody - Protein Information**Name** FZD4**Function**

Receptor for Wnt proteins (PubMed: [30135577](http://www.uniprot.org/citations/30135577)). Most 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 (PubMed: [30135577](http://www.uniprot.org/citations/30135577)). Plays a critical role in retinal vascularization by acting as a

receptor for Wnt proteins and norrin (NDP) (By similarity). In retina, it can be activated by Wnt protein-binding and also by Wnt-independent signaling via binding of norrin (NDP), promoting in both cases beta-catenin (CTNNB1) accumulation and stimulation of LEF/TCF-mediated transcriptional programs (By similarity). 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.

Cellular Location

Cell membrane; Multi-pass membrane protein

Tissue Location

Almost ubiquitous (PubMed:10544037). Largely expressed in adult heart, skeletal muscle, ovary, and fetal kidney (PubMed:10544037). 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 (PubMed:10544037)

Goat Anti-Frizzled 4 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Goat Anti-Frizzled 4 Antibody - Images



AF1443a (1 µg/ml) staining of Small Intestine (Ileum) cell lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-Frizzled 4 Antibody - Background

This gene is a member of the frizzled gene family. Members of this family encode seven-transmembrane domain proteins that are receptors for the Wingless type MMTV integration site family of signaling proteins. Most frizzled receptors are coupled to the beta-catenin canonical

signaling pathway. This protein may play a role as a positive regulator of the Wingless type MMTV integration site signaling pathway. A transcript variant retaining intronic sequence and encoding a shorter isoform has been described, however, its expression is not supported by other experimental evidence.

Goat Anti-Frizzled 4 Antibody - References

Maternal genes and facial clefts in offspring: a comprehensive search for genetic associations in two population-based cleft studies from Scandinavia. Jugessur A, et al. PLoS One, 2010 Jul 9. PMID 20634891.

Severe retinopathy of prematurity associated with FZD4 mutations. Ells A, et al. Ophthalmic Genet, 2010 Mar. PMID 20141357.

Clinical presentation and genetic correlation of patients with mutations affecting the FZD4 gene. Drenser KA, et al. Arch Ophthalmol, 2009 Dec. PMID 20008721.

High-density association study of 383 candidate genes for volumetric BMD at the femoral neck and lumbar spine among older men. Yerges LM, et al. J Bone Miner Res, 2009 Dec. PMID 19453261.

Secreted Frizzled-related protein-1 is a negative regulator of androgen receptor activity in prostate cancer. Kawano Y, et al. Br J Cancer, 2009 Apr 7. PMID 19277043.