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# Goat Anti-Frizzled 7 Antibody

**Peptide-affinity purified goat antibody**
**Catalog # AF1444a**

## Specification

### Goat Anti-Frizzled 7 Antibody - Product Information

| | |
|---|---|
| Application | **WB, E** |
| Primary Accession | O75084 |
| Other Accession | NP_003498, 8324, 14369 (mouse) |
| Reactivity | **Human** |
| Predicted | **Mouse** |
| Host | **Goat** |
| Clonality | **Polyclonal** |
| Concentration | **100ug/200ul** |
| Isotype | **IgG** |
| Calculated MW | **63620** |

### Goat Anti-Frizzled 7 Antibody - Additional Information

**Gene ID** 8324

**Other Names**
Frizzled-7, Fz-7, hFz7, FzE3, FZD7

**Dilution**
WB~~1:1000
E~~N/A

**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 7 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### Goat Anti-Frizzled 7 Antibody - Protein Information

**Name** FZD7

**Function**
Receptor for Wnt proteins. Most frizzled receptors are coupled to the beta-catenin canonical signaling pathway, which leads to the activation of disheveled proteins, inhibition of GSK-3 kinase,

nuclear accumulation of beta-catenin and activation of Wnt target genes. 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. Activation by WNT8 induces expression of beta-catenin target genes (By similarity). Following ligand activation, binds to CCDC88C/DAPLE which displaces DVL1 from FZD7 and leads to inhibition of canonical Wnt signaling, activation of G-proteins by CCDC88C and triggering of non-canonical Wnt responses (PubMed:<a href="http://www.uniprot.org/citations/26126266" target="_blank">26126266</a>). 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. Endosome membrane; Multi-pass membrane protein. Note=Associated to the plasma membrane in the presence of FZD7 and phosphatidylinositol 4,5-bisphosphate (PIP2). Localized in recycling endosomes in other conditions

**Tissue Location**
High expression in adult skeletal muscle and fetal kidney, followed by fetal lung, adult heart, brain, and placenta Specifically expressed in squamous cell esophageal carcinomas

## Goat Anti-Frizzled 7 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 Cytomety
- Cell Culture

## Goat Anti-Frizzled 7 Antibody - Images


AF1444a (0.3 µg/ml) staining of HepG2 cell lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

## Goat Anti-Frizzled 7 Antibody - Background

Members of the 'frizzled' gene family encode 7-transmembrane domain proteins that are receptors for Wnt signaling proteins. The FZD7 protein contains an N-terminal signal sequence, 10 cysteine residues typical of the cysteine-rich extracellular domain of Fz family members, 7 putative transmembrane domains, and an intracellular C-terminal tail with a PDZ domain-binding motif. FZD7 gene expression may downregulate APC function and enhance beta-catenin-mediated signals in poorly differentiated human esophageal carcinomas.

**Goat Anti-Frizzled 7 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.
Down-regulation of frizzled-7 expression decreases survival, invasion and metastatic capabilities of colon cancer cells. Ueno K, et al. Br J Cancer, 2009 Oct 20. PMID 19773752.
Genetic susceptibility to distinct bladder cancer subphenotypes. Guey LT, et al. Eur Urol, 2010 Feb. PMID 19692168.
Variable FZD7 expression in colorectal cancers indicates regulation by the tumour microenvironment. Vincan E, et al. Dev Dyn, 2010 Jan. PMID 19655379.
PTEN identified as important risk factor of chronic obstructive pulmonary disease. Hosgood HD 3rd, et al. Respir Med, 2009 Dec. PMID 19625176.