

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Frizzled-5 in direct ELISAs and Western blots. In direct ELISAs, less than 5% cross-reactivity with recombinant mouse (rm) Frizzled-1, rmFrizzled-2, rmFrizzled-3, rmFrizzled-6, rmFrizzled-7, and rmFrizzled-8 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Frizzled-5 Ala27-Pro167 Accession # AAC50385
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Wnt signaling is involved in variety of developmental processes including cell fate determination, cell polarity, tissue patterning and control of cell proliferation. Members of the Frizzled family of proteins serve as receptors for the Wnt signaling pathway. The founding member of this family was identified in *Drosophila* based on its role in tissue polarity in the adult cuticle and named for the disorganized appearance of bristle hairs on the mutant. The predicted structure of Frizzled proteins is similar among all family members, containing a divergent N-terminal signal peptide, a highly conserved extracellular cysteine-rich domain, a variable-length linker region, a seven-pass transmembrane domain, and a variable-length C-terminal tail. One of the most conserved regions of the Frizzled (Frz) proteins is the extracellular cysteine-rich domain (CRD) which spans approximately 120 amino acid (aa) and contains 10 invariant cysteines (1). Human Frz-5 shows 95% aa identity to mouse Frz-5 in the CRD region. In the mouse, Frz-5 is expressed in adult tissues (heart and kidney), as well as embryonic tissues (telencephalon, eye, and lung bud) (2, 3). Null mutations in Frz-5 reveal that it plays a role in the formation and maintenance of the extra-embryonic vasculature (3). Functional interactions with Frz-5 have been reported for Wnt-5a, Wnt-10b, Wnt-2b, and Wnt-7a, implicating these Wnts as ligands for the Frz-5 receptor (3-5).

Two distinct Wnt signal transduction pathways have been characterized. One is the canonical Wnt/β-catenin pathway that is involved in diverse biological mechanisms such as dorsal/ventral development in *Xenopus* embryos and mammalian tumor formation. Frz-5 is implicated in this pathway based on its ability to induce β-catenin target genes in the presence of ligand (5). However, Frz-5 is also implicated in β-catenin independent pathways (4, 6).

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc., and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.