

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Frizzled-1 in direct ELISAs and Western blots. In direct ELISAs, less than 10% cross-reactivity with recombinant mouse (rm) Frizzled-2, rmFrizzled-4, rmFrizzled-7, and rmFrizzled-8 is observed, and less than 1% cross-reactivity with rmF
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Frizzled-1 Gln72-His248 (Met122Ile) Accession # O70421
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 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.
Immunohistochemistry	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

The Wnt genes encode a large family of glycoproteins that are essential in development and tissue maintenance (1). Members of the Frizzled family of proteins serve as receptors for the Wnt signaling pathway (2). Ten mouse and human Frizzled genes have been identified to date. 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 (CRD), a variable-length linker region, a seven-pass transmembrane region, and a variable-length C-terminal cytoplasmic domain. The CRD, which comprises 642 amino acid residues and shares 95% identity with the human orthologue in the CRD. Frizzled-1 mRNA has been detected in relatively large amounts in adult heart, placenta, lung, kidney, pancreas, prostate, and ovary, and in fetal lung and kidney (3).

Several Frizzled-dependent signaling pathways exist (2). Their activation depends on the Wnt ligand and the cell context. Members of the low density lipoprotein receptor-related protein (LRP) are co-receptors for the Wnt ligands. LRP5/6 serve as co-receptors in the Wnt/Frizzled canonical pathway that alters gene expression via the stabilization of β-catenin (4, 5). LRP1 may down regulate Wnt-3a/Frizzled-1 signaling in the canonical pathway by sequestering Frizzled-1 (6). Frizzled-1 is one of the purported Wnt-10b receptors whose signaling inhibits adipogenesis in preadipocytes (7). Frizzled-1 may be part of a feedback mechanism to modulate the effects of BMP-2 in mesenchymal cells since upregulation of its expression by BMP-2 counteracts the effects of BMP-2 and Wnt-3a in inducing the expression of the osteoblast differentiation marker, alkaline phosphatase (8).

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