Mouse Frizzled-4 Alexa Fluor® 532-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF194X
100 µg

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Frizzled-4 in direct ELISAs and Western blots. In direct ELISAs, approximately 5% cross-reactivity with recombinant mouse (rm) Frizzled-8 and less than 2% cross-reactivity with rmFrizzled-3 and rmFrizzled-7 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Frizzled-4 Phe37-Glu180 Accession # Q8BLL2
Conjugate	Alexa Fluor 532 Excitation Wavelength: 534 nm Emission Wavelength: 553 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

Frizzled-4, designated CD344, is a 7-transmembrane glycoprotein of the Frizzled family within the G-protein coupled receptor superfamily (1, 2). Frizzled proteins function as receptors for Wnt proteins and can activate canonical Wnt/beta-catenin signaling as well as planar cell polarity and calcium flux pathways (1). Frizzled-4 is particularly important in angiogenic Wnt pathway signaling (1, 5). Frizzleds contain a divergent N-terminal signal peptide, a highly conserved ~120 amino acid (aa) cysteine-rich domain (CRD), a variable length linker region, seven transmembrane domains, and a variable-length C-terminal tail (1). The mouse Frizzled-4 cDNA encodes 537 aa with a 36 aa signal sequence and a 186 aa N-terminal extracellular sequence (4). The portion expressed includes aa 37-180, and shares 93%, 94%, 90%, 89%, and 88% identity with human, rat, equine, bovine and canine Frizzled-4, respectively. This portion competes for Wnt binding with endogenous receptors. In humans, a 122 aa soluble form that diverges at aa 95 is proposed to be a positive regulator of Wnt signaling pathways (5). Frizzled-4 is unusual in binding a non-wnt ligand, Norrin, in addition to binding Wnt ligands (1, 3, 6). Norrin binds the Frizzled-4 CRD, activates Wnt signaling pathways and uses LRP5/6 as co-receptors (3, 6). Deletion of either Frizzled-4 or Norrin in mice results in a similar phenotype including malformation of vasculature in the retina, cerebellar degeneration, and loss of hair cells in the inner ear (1, 3, 7). In humans, blindness due to familial exudative vitreoretinopathy (FEVR) is associated with mutations producing loss of function of Frizzled-4 or Norrin, designated EVR1 and EVR2, respectively (1, 3, 8). Frizzled-4 expression has been found in many tissues, including mouse ovary, where it influences corpus luteum vasculogenesis and is necessary for fertility (4, 9).

PRODUCT SPECIFIC NOTICES

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