

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Frizzled-10 in direct ELISAs.
Source	Recombinant Monoclonal Rabbit IgG Clone # 2678A
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived human Frizzled-10 Ile21-Gly161 Accession # Q6NSL8
Conjugate	Alexa Fluor 350 Excitation Wavelength: 346 nm Emission Wavelength: 442 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and 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.

Flow Cytometry	Titration recommended for optimal concentration with starting range of 0.1-1 µg/1 million cells. Sample used for this experiment was NS0 cell line transfected with Human Frizzled-10
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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. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Frizzled-10, also known as CD350, is a 68 kDa seven pass transmembrane glycoprotein in the Frizzled family of Wnt receptors (1, 2). The 205 amino acid N-terminal extracellular region of Frizzled-10 contains a cysteine-rich domain that comprises the Wnt binding domain and mediates receptor oligomerization (3-5). The C-terminal cytoplasmic tail contains a PDZ-interaction motif (3). PDZ motifs mediate intracellular binding to scaffolding proteins. Within the cysteine-rich domain, human Frizzled-10 shares 71% amino acid (aa) sequence identity with Frizzled-9 and 31%-46% with Frizzled-1, -2, -3, -4, -5, -6, -7, and -8. It shares 96%, 94%, 90%, and 82% aa sequence identity with chick, mouse, Xenopus, and zebrafish Frizzled-10, respectively. Frizzled-10 is expressed during embryogenesis in the primitive streak, dorsal neural tube, developing brain, limb bud, and airway epithelium (6-11). It is induced by Shh and colocalizes with Shh and Wnt-7a in the neural tube (12, 13). In the adult, Frizzled-10 is expressed in placenta, gastric glands, and colon and renal tubule epithelial cells (4). Frizzled-10 associates with LRP5 to transduce Wnt-7a and Wnt-7b signals, resulting in the stabilization of cytoplasmic beta-catenin (11, 13). Frizzled-10 is also up-regulated in some cancers and transformed cell lines (4, 14). It binds hypoxia inducible gene 2, which promotes oncogenic Wnt signaling and functions as an autocrine growth factor for renal cell carcinomas (15).

References:

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