

## DESCRIPTION

|                                                                                                                                                                                                         |                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human                                                                                        |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human Frizzled-10 in direct ELISAs.                                                  |
| <b>Source</b>                                                                                                                                                                                           | Monoclonal Mouse IgG <sub>2B</sub> Clone # 1023101                                           |
| <b>Purification</b>                                                                                                                                                                                     | Protein A or G purified from cell culture supernatant                                        |
| <b>Immunogen</b>                                                                                                                                                                                        | Mouse myeloma cell line, NS0-derived human Frizzled-10<br>Ile21-Gly161<br>Accession # Q9ULW2 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 750<br>Excitation Wavelength: 749 nm<br>Emission Wavelength: 775 nm              |
| <b>Formulation</b>                                                                                                                                                                                      | 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.

**Immunohistochemistry** Optimal dilution of this antibody should be experimentally determined.

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 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 upregulated 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).

## PRODUCT SPECIFIC NOTICES

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