Human/Mouse Frizzled-2 Antibody

Monoclonal Rat IgG_{2A} Clone # 202102

Catalog Number: MAB1307

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects mouse Frizzled-2 in direct ELISAs and Western blots. In direct ELISAs and Western blots, this antibody does not cross-react with recombinant mouse (rm) Frizzled-1, -3, -4, -6, -7, -8, or rhFrizzled-5.
Source	Monoclonal Rat IgG_{2A} Clone # 202102
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Frizzled-2 Gln29-Leu168 Accession # Q9JIP6
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

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.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Mouse Frizzled-2 Fc Chimera (Catalog # 1307-FZ)
Immunoprecipitation	Gujral, T. *et al.* (2014) Cell **159**:844.	

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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 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 proteins is the extracellular cysteine-rich domain (CRD) which spans approximately 120 AA and contains 10 invariant cysteines (1). Mouse Frizzled-2 shows 100% amino acid identity to human and rat Frizzled-2 in the CRD region. Frizzled-2 expression is greater in embryonic than adult tissues, with heart, brain, lung, kidney and gut showing the highest levels (2). In addition, Frizzled-2 is expressed during migration and proliferation of neural crest cells that populate the heart and great arteries (3). A non-canonical Frizzled-2 pathway has been shown to regulate Epithelial-Mesenchymal Transition (EMT) and metastasis (4). Secreted frizzled related proteins (sFRPs), antagonists of the Wnt pathway, have been shown to interact with both Wnt ligands and Frizzled receptors (5).

References:

1. Wang, Y. *et al.* (1996) J. Biol. Chem **271**:4468.
2. Malik, T. and R. Shivdasani (2000) Biochem. J. **349**:829.
3. van Gijn, M. *et al.* (2001) Anat. Embryol. **203**:185.
4. Gujral, T. *et al.* (2014) Cell **159**:844.
5. Bafico, A. *et al.* (1999) J. Biol. Chem. **274**:16180.