

## Product datasheet for **MC220238**

### **Fzd3 (NM\_021458) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Fzd3 (NM_021458) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Fzd3
Synonyms:	AU020229; D930050A07Rik; Fz3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >MC220238 representing NM\_021458  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCTGTGAGCTGGATTGTCTTTGATCTTTGGCTCTTACTGTGTTTCTGGGGCAGATAGTGGGCACA  
 GTTTGTTTTCTTGTGAACCTATAACCTTGAGGATGTGCCAAGATTGCCTTACAATACTACCTTCATGCC  
 TAATCTTCTGAACCATTATGACCAACAGACTGCAGCTTTAGCAATGGAGCCCTTCCACCCTATGGTGAAC  
 CTGGATTGTTCTCGGGATTTTCGGCCATTTCTTTGTGCACTCTATGCCCTATTTGTATGGAATATGGAC  
 GTGTCACACTTCCTGCCGTAGGCTGTGTGAGCGTGCCTATAGCGAGTGTCAAACCTCATGGAGATGTT  
 TGGTGTCCCGTGGCTGAAGATATGGAGTGCAGTAGGTTCCAGATTGTGATGAGCCATATCCCGACTT  
 GTGGATTTGAATTTAGTTGGAGATCCAACCTGAAGGAGCCCAAGTGCAGTGCAGAGGGACTATGGTTTTT  
 GGTGTCCAGAGAGTTAAAAATTGATCCTGATCTTGGCTATTCTTTCTGCACGTGCGAGATTGTCGCC  
 ACCATGTCCCAATATGTACTTCAGGAGAGAAGAACTGTCAATTTGCTCGCTATTTTCATAGGCTGATTTC  
 ATCATTTGCCCTCTGCCACATTGTTTACTTTTTTAACCTTTCTAATTGACGTGACAAGATTCCGTTACC  
 CTGAAAGACCTATCATATTTTATGCAGTCTGTACATGATGGTGTCAATATTTTCTTCATTGGGTTTTT  
 GCTGGAGGACCGAGTAGCCTGCAATGCATCTAGCCCTGCACAGTATAAGGCTTCTACAGTGACACAAGGA  
 TCTCACAATAAGGCCTGTACCATGCTCTTTATGGTACTATATTTTTTCACTATGGCTGGCAGTGTATGGT  
 GGGTAATCTTACCATCACATGGTTTTTTCAGAGCTGTGCCAAAGTGGGGCAGTGAAGCTATTGAGAAGAA  
 AGCATTGCTGTTTCATGCCAGTGCCTGGGGCATCCCCGGAACCTAACTATCATCCTTTTAGCGATGAAT  
 AAAATTGAAGGTGACAATATTAGTGGCGTGTGTTTTGTCGGCCTCTACGACGTTGATGCATTAAGATATT  
 TCGTTCTCGCTCCCCTCTGCCTGTATGTGGTAGTTGGGTTTTCTCCTTTTAGCCGGCATTATATCCCT  
 AAACAGAGTTCGGATTGAGATCCCATTAGAAAAGGAAAACCAAGATAAGTTAGTGAAGTTCATGATCCGG  
 ATGGTGTTTTACGATTCTCTACCTTGTGCCACTCTTGGTTGTAATTGGATGTTACTTTTTATGAGCAAG  
 CTTACCGCGCATCTGGGAGACAACATGGATCCAGGAACGCTGCAGAGAGTATCACATTCATGTCGGTA  
 CCAGGTTACTCAGATGAGTCGTCCAGACCTGATTCTCTTTCTGATGAAGTATCTCATGGCTCTCATAGTT  
 GGGATTCCTCTATATTTGGGTTGGAAGCAAAAAGACATGCTTTGAATGGGCCAGTTTTTTCCATGGGC  
 GTAGGAAAAAAGAGATAGTGAATGAGAGCCGGCAGGTGCTCCAGGAACCTGACTTTGCTCAGTCACTCT  
 GAGGGACCCAAATACTCCAATTATAAGAAAATCAAGAGGAACTTCCACTCAAGGGACATCCACACATGCT  
 TCTTCAACTCAGCTGGCCATGGTGGATGACCAAGAAGCAAGCAGGGAGTGCCACAGCAAAGTGAGCA  
 GCTACCATGGCAGCCTCCACAGGTACGGGATGGCAGGTACACTCCCTGCAGTTACCGAGGAATGGAGGA  
 GAGACTACCTCACGGCAGCATGTACGGCTGACGGATCATTCCAGGCACAGTAGTTCTCATCGGCTCAAC  
 GAGCAGTCCCACACAGCAGCATCCGAGACCTCAGTAACAACCCCATGACTCACATTACACATGGCACCA  
 GCATGAACCGTGTATTGAGGAGGATGGAACCAAGTCT**AG**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM\_021458
- Insert Size:** 2001 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**RefSeq:** [NM\\_021458.2](#), [NP\\_067433.1](#)

**RefSeq Size:** 12742 bp

**RefSeq ORF:** 2001 bp

**Locus ID:** 14365

**UniProt ID:** [Q61086](#)

**Cytogenetics:** 14 34.09 cM

**Gene Summary:** Receptor for Wnt proteins. Most of frizzled receptors are coupled to the beta-catenin canonical signaling pathway, which leads to the activation of disheveled proteins, inhibition of GSK-3 kinase, nuclear accumulation of beta-catenin and activation of Wnt target genes. A second signaling pathway involving PKC and calcium fluxes has been seen for some family members, but it is not yet clear if it represents a distinct pathway or if it can be integrated in the canonical pathway, as PKC seems to be required for Wnt-mediated inactivation of GSK-3 kinase. Both pathways seem to involve interactions with G-proteins. Activation by Wnt5A stimulates PKC activity via a G-protein-dependent mechanism. Involved in transduction and intercellular transmission of polarity information during tissue morphogenesis and/or in differentiated tissues. Plays a role in controlling early axon growth and guidance processes necessary for the formation of a subset of central and peripheral major fiber tracts. Required for the development of major fiber tracts in the central nervous system, including: the anterior commissure, the corpus callosum, the thalamocortical, corticothalamic and nigrostriatal tracts, the corticospinal tract, the fasciculus retroflexus, the mammillothalamic tract, the medial lemniscus, and ascending fiber tracts from the spinal cord to the brain. In the peripheral nervous system, controls axon growth in distinct populations of cranial and spinal motor neurons, including the facial branchiomotor nerve, the hypoglossal nerve, the phrenic nerve, and motor nerves innervating dorsal limbs. Involved in the migration of cranial neural crest cells. May also be implicated in the transmission of sensory information from the trunk and limbs to the brain. Controls commissural sensory axons guidance after midline crossing along the anterior-posterior axis in the developing spinal cord in a Wnt-dependent signaling pathway. Together with FZD6, is involved in the neural tube closure and plays a role in the regulation of the establishment of planar cell polarity (PCP), particularly in the orientation of asymmetric bundles of stereocilia on the apical faces of a subset of auditory and vestibular sensory cells located in the inner ear. Promotes neurogenesis by maintaining sympathetic neuroblasts within the cell cycle in a beta-catenin-dependent manner. [UniProtKB/Swiss-Prot Function]