

## Product datasheet for **MG208593**

### **Fzd4 (NM\_008055) Mouse Tagged ORF Clone**

#### **Product data:**

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids                     |
| Product Name:             | Fzd4 (NM_008055) Mouse Tagged ORF Clone |
| Tag:                      | TurboGFP                                |
| Symbol:                   | Fzd4                                    |
| Synonyms:                 | Fz4                                     |
| Mammalian Cell Selection: | Neomycin                                |
| Vector:                   | pCMV6-AC-GFP (PS100010)                 |
| E. coli Selection:        | Ampicillin (100 ug/mL)                  |



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**ORF Nucleotide Sequence:**

>MG208593 representing NM\_008055  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCCTGGCCGGGCACAGGGCCGAGCAGCCGGGGGCGCCTGGAGGCGTCGGGCTCAGGCTGGGGCTGC  
 TGCTGCAGTTGCTCCTGCTCCTGCGGCCGACATTGGGGTTCGGGGACGAGGAGGAGCGGCCCTGCGACCC  
 CATCCGCATCGCCATGTGCCAGAACCTCGGCTACAACGTGACCAAGATGCCCAACTTAGTGGGACACGAG  
 CTGCAGACAGACGCCGAGCTGCAGCTGACAACCTTACGCGGCTCATCCAGTACGGCTGCTCCAGCCAGC  
 TGCAGTTCTTCTTTGTTTCGTTTATGTGCCAATGTGCACAGAGAAGATCAACATCCCCATCGGCCCGTG  
 CGGTGGCATGTGCCTTTCAGTCAAGAGACGCTGTGAACCACTCCTGAGAGAATTTGGGTTTGCCTGGCCC  
 GACACCCTGAAGTGCAGCAAGTCCCGCCCAAGACGACCACAACCACATGTGCATGGAAGGACCAGGTG  
 ATGAAGAGTTCCCTTGGCCACAAGACTCCCATCCAGCCGGGAAGAGTGCCACTCCGTGGGAAGCAA  
 TTCTGATCAGTACATCTGGGTGAAGAGGAGCCTGAAGTGTCTCAAGTGTGGCTACGATGCTGGCTTG  
 TACAGCCGCTCAGCTAAGGAGTTCACGGATATTTGGATGGCTGTGTGGCCAGCCTCTGCTTCATCTCCA  
 CCACCTTACCCTGCTGACCTTCTGATTGATTATCCAGTTTTCTTACCCTGAGCGCCCCATCATATT  
 TCTCAGTATGTGCTATAATTTATAGCATTGCTTATATTGTTCCGGCTGACTGTAGGCCGGGAAAGGATA  
 TCCTGTGATTTTGAAGAGCGCCAGAGCCGTTCTCATCCAAGAAGGACTTAAGAACACAGGATGTGCAA  
 TAATTTCTTGTGATGTACTTTTTTGGAAATGGCCAGTCCATTTGGTGGGTTATTCTGACACTCACTTG  
 GTTTTTGGCAGCCGACTCAAGTGGGTCATGAAGCCATTGAAATGCACAGTTCTATTTCCACATCGCA  
 GCCTGGGCTATTCCCGCAGTGAACCACTGTGATCTTGTATTGAGACTAGTGGATGCCGATGAAGTGA  
 CTGGCTTGTGCTATGTTGGGAACCAAACTAGATGCCCTCACTGGCTTGTGGTGGCTCCTCTCTTTAC  
 GTATTTGGTGATTGGAACGCTGTTCAATTGCGCGGGTTTGGTGGCCTTATTCAAATTCGGTCCAATCTT  
 CAAAAAGACGGGACAAAGACAGACAAGTTGAAAAGGCTAATGGTCAAGATCGGGGCTTCTCAGTACTGT  
 ACACGGTCTCTGCAACCTGTGTGATTGCCTGTTATTTCTATGAAATCTCAAAGTGGGCACTCTTTCGATA  
 TTCTGCAGATGACTCAAACATGGCAGTTGAAATGTTGAAAATTTTATGTCTTTGCTCGTGGGCATCACT  
 TCAGGCATGTGGATTTGGTCTGCCAAAACCTTTCACACGTGGCAAAGTGTCTAACCGATTGGTGAATT  
 CTGGGAAGGTAAGAGAGAGAAGAGGGGAATGGTTGGGTGAAGCCAGGAAAAGGCAACGAGACTGTGGT  
 A

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>MG208593 representing NM\_008055  
 Red=Cloning site Green=Tags(s)

MAWPGTGPSSRGAPGGVGLRLLQLLLLLRPTLFGFDEEERRCDPIRIAMCQNLGYNVTKMPNLVGHE  
 LQTDALQLTTFTPLIQYGCSSQLQFFLCSVYVPMCTEKINIPGCGMCLSVKRRRCEPVLREFGFAWP  
 DTLNCSKFPQNDHNHMCMEGPGDEEVPLPHKTPIQPGEECHSVGSNSDQYIWKRLNCLVKCGYDAGL  
 YSRSAKEFTDIWMAVWASLFCFISTTFTVLTFLIDSSRFSPYPERPIIFLSMCYNIYSIAYIVRLTVGRERI  
 SCDFEEAAEPVLIQEGLKNTGCAIIFLLMYFFGMASSIWWVILTLTWFLAAGLKWGHEAIEMHSSYFHIA  
 AWAIPAVKTIVILIMRLVDADEL TGLCYVGNQNLDALTFVVAFLFTYL VIGTLFIAAGLVALFKIRSNL  
 QKDGTDKLERLMVKIGVFSVLYTVPATCVIACYFYEISNWALFRYSADDSNMAVEMLKIFMSLLVGIT  
 SGMWIWSAKTLHTWQKCSNRLVNSGKVKREKRGNGWVKPGKGNETVV

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

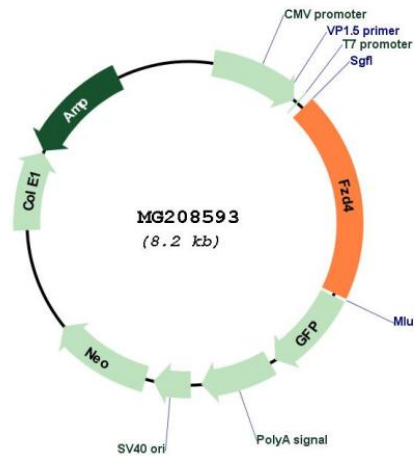
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



|                               |   |
|-------------------------------|---|
| <b>ACCN:</b>                  | NM_008055   |
| <b>ORF Size:</b>              | 1611 bp   |
| <b>OTI Disclaimer:</b>        | The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a>  |
| <b>OTI Annotation:</b>        | This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.  |
| <b>Components:</b>            | 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).  |
| <b>Reconstitution Method:</b> | <ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>   |
| <b>RefSeq:</b>                | <a href="#">NM_008055.2</a> , <a href="#">NP_032081.2</a>   |
| <b>RefSeq Size:</b>           | 3633 bp   |
| <b>RefSeq ORF:</b>            | 1614 bp   |
| <b>Locus ID:</b>              | 14366   |
| <b>UniProt ID:</b>            | <a href="#">Q61088</a>  |
| <b>Cytogenetics:</b>          | 7 49.32 cM  |
| <b>Gene Summary:</b>          | Receptor for Wnt proteins. Most of frizzled receptors are coupled to the beta-catenin (CTNNB1) canonical signaling pathway, which leads to the activation of disheveled proteins, inhibition of GSK-3 kinase, nuclear accumulation of beta-catenin (CTNNB1) and activation of Wnt target genes. Plays a critical role in retinal vascularization by acting as a receptor for Wnt proteins and norrin (NDP). In retina, it can be both activated by Wnt protein-binding, but also by a Wnt-independent signaling via binding of norrin (NDP), promoting in both cases beta-catenin (CTNNB1) accumulation and stimulation of LEF/TCF-mediated transcriptional programs. 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. May be involved in transduction and intercellular transmission of polarity information during tissue morphogenesis and/or in differentiated tissues. Activation by Wnt5A stimulates PKC activity via a G-protein-dependent mechanism.[UniProtKB/Swiss-Prot Function] |