

## Product datasheet for **MG215452**

### **Flrt3 (NM\_178382) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Flrt3 (NM_178382) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Flrt3
Synonyms:	5530600M07Rik; C430047I10Rik; mKIAA1469
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG215452 representing NM\_178382  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGATCAGCCCAGCCTGGAGCCTTTCCTCATCGGGACTAAAATTGGGCTGTTCTTCCAAGTGGCACCTC  
 TGTCAAGTTGTGGCTAAATCCTGTCCATCTGTATGTCGCTGTGACGAGGCTTCATTTACTGTAACGATCG  
 CTCTCTGACATCCATTCCAGTGGGAATTCGGAGGATGCTACAACACTCTACCTTCAAGAACAACCAATA  
 AACAAATGTTGGGATTCCTTCCGATTTGAAGAACTTGTGAAAGTACAAAGAATATACCTATACCACAACA  
 GTTTAGATGAATTCCTACCAACCTTCAAAGTATGTCAAAGAGTTACATTTGCAAGAGAATAACATAAG  
 GACTATCACCTATGATTCACCTTTCGAAAATTCGTATCTGGAAGAGTTACACTTGGATGATAACTCAGTC  
 TCGGCTGTAGCATCGAAGAGGGAGCATTCGAGACAGTAACTATCTGCGGCTGCTTTTTCTGTCCCGTA  
 ACCACCTTAGCACAATCCCGGGGGCTGCCAGGACTATTGAGGAATTACGCCTGGATGACAATCGCAT  
 ATCAACGATCTCTCCCCATCACTTCATGGTCTACAAGCCTGAAACGCCTGGTTTTAGATGGAAACTTG  
 TTGAACAACCATGGTTTGGGTGACAAAGTTTTCTCAACTTAGTAACTAACAGAGCTGTCCCTGGTGA  
 GGAATTCCTTGACAGCAGCGCCAGTGAACCTTCCCGGCACAAGCCTGAGGAAGCTTTACCTTCAAGACAA  
 CCATATCAACCGGTACCCCAAATGCTTTTTCTATTTAAGGCAGCTGTATCGACTCGATATGTCTAAT  
 AATAACCTAAGCAATTTACCTCAGGGTATCTTTGATGATTTGGACAATAAACCCAACTGATTCTTCGCA  
 ACAATCCTTGGTATTGTGGATGCAAGATGAAATGGGTACGAGACTGGTTACAGTCGCTACCGGTGAAGGT  
 CAATGTGCGTGGGCTCATGTGCCAAGCCCCAGAAAAGTCCGTGGAATGGCTATCAAGGACCTCAGTGCA  
 GAACCTGTTGATTGTAAGACAGTGGGATTGTGAGCACCATTAGATAACCACTGCAATACCCAACACAG  
 CATATCCTGCTCAAGGACAGTGGCCAGCTCCTGTGACCAAAACAACAGATATTAACCAACCAAGCTCAT  
 TAAGGATCAGCGAACTACAGGCAGCCCTCACGAAAACAATTTAATTACTGTGAAATCTGTCAACCCCT  
 GACACAATCCACATATCCTGGAGACTTGTCTGCCTATGACTGCTCTGCGACTCAGCTGGCTTAAACTGG  
 GCCATAGCCAGCCTTTGGATCTATAACAGAAACAATCGTAACAGGAGAACGAGTGAATACTTGGTCAC  
 CGCCCTAGAACCTGAATCACCTATAGAGTATGCATGGTCCCATGGAACACAGTAACTTTACCTGTTT  
 GATGAAACACCTGTTTGTATTGAGACCCAACTGCCCTCTTGAATGTACAACCCACAACCACCTCA  
 ATCGAGAGCAAGAGAAAGAACCTTACAAAAATCCAAATTTACCTTTGGCTGCCATCATTGGTGGGCTGT  
 GGCCTGGTAAGCATCGCCCTCCTTGTCTTGGTGTGGTATGTGCATAGGAACGGGTCAGTGTTTTCA  
 CGGAACCTGTGCGTACAGCAAAGGGCGGAGAGAAAGGATGACTATGCAGAAGCCGCTACTAAGAAAGACA  
 ACTCCATCCTGGAAATCAGGGAACTTCTTCCAGATGCTACCGATAAGCAATGAACCCATCTCCAAGGA  
 GGAGTTTGTAAATACACACCATATTTCTCCGAATGGGATGAATCTGTACAAGAACAACCTCAGTGAGAGC  
 AGTAGTAACCGGAGCTACAGAGACAGTGGCATCCAGACTCGGACCCTCACACTCA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>MG215452 representing NM\_178382  
 Red=Cloning site Green=Tags(s)

MISPAWSLFLIGTKIGLFFQVAPLSVVAKSCPSVCRCDAGFIYCNDRLSIPVGIPE DATTLYLQNNQI  
 NNVGIPSDLKNLLKVQRIYLYHNSLDEFPTNLPKYVKELHLQENNIRTITYDSLKIPYLEELHLDNSV  
 SAVSIEEGAFRDSNYLRLLFLSRNHLSTIPGGLPRTIEELRLDDNRISTISSPSLHGLTSLKRLVLDGNL  
 LNNHGLGDKVFFNLVNLTELSLVRNSLTAAPVNLPGTSLRKLQDNHINRVPPNAFSYLRQLYRLDMSN  
 NNLNLPQGI FDDLNIITQLILRNPWYCGCKMKWVRDWLQSLPVKVNVRGLMCQAPEKVRGMAIKDLSA  
 ELFDCKDSGIVSTIQITTAIPNTAYPAQGWPAVTKQPDIKNPKLIKQRTTGSRSKTIILITVKSVP  
 DTIHISWRLALPMTALRLSWLKLGHSPAFGSITETIVTGERSEYLVTALEPESPYRVCMPMETSNLVLF  
 DETPVCJETQTAPLRMYNPTTTLNREQEKEPYKNPNLPLAAIIGGAVALVSIALLALVCVYVHRNGLSFS  
 RNCAYSKGRRRKDDYAEAGTKKDNSILEIRETSFQMLPISNEPISKEEFVIHTIFPPNGMNLKNNLSES  
 SSNRSYRDSGIPDSHSHS

**TRTRPLE** - GFP Tag - V



<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_178382.4</a> , <a href="#">NP_848469.1</a>
<b>RefSeq Size:</b>	3984 bp
<b>RefSeq ORF:</b>	1950 bp
<b>Locus ID:</b>	71436
<b>UniProt ID:</b>	<a href="#">Q8BGT1</a>
<b>Cytogenetics:</b>	2 F3

**Gene Summary:**

Functions in cell-cell adhesion, cell migration and axon guidance, exerting an attractive or repulsive role depending on its interaction partners (PubMed:19056886, PubMed:25374360). Plays a role in the spatial organization of brain neurons (PubMed:25374360). Plays a role in vascular development in the retina (PubMed:25374360). Plays a role in cell-cell adhesion via its interaction with ADGRL3 and probably also other latrophilins that are expressed at the surface of adjacent cells (PubMed:22405201, PubMed:25374360). Interaction with the intracellular domain of ROBO1 mediates axon attraction towards cells expressing NTN1 (PubMed:24560577). Mediates axon growth cone collapse and plays a repulsive role in neuron guidance via its interaction with UNC5B, and possibly also other UNC-5 family members (PubMed:21673655, PubMed:25374360). Promotes neurite outgrowth (in vitro) (By similarity). Mediates cell-cell contacts that promote an increase both in neurite number and in neurite length (By similarity). Plays a role in the regulation of the density of glutamatergic synapses (PubMed:22405201). Plays a role in fibroblast growth factor-mediated signaling cascades (PubMed:16872596). Required for normal morphogenesis during embryonic development, but not for normal embryonic patterning (PubMed:19056886). Required for normal ventral closure, headfold fusion and definitive endoderm migration during embryonic development (PubMed:18448090). Required for the formation of a normal basement membrane and the maintenance of a normal anterior visceral endoderm during embryonic development (PubMed:19056886).[UniProtKB/Swiss-Prot Function]