

## Product datasheet for **RR214542**

### **Flrt3 (NM\_001126291) Rat Tagged ORF Clone**

#### **Product data:**

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids                       |
| Product Name:             | Flrt3 (NM_001126291) Rat Tagged ORF Clone |
| Tag:                      | Myc-DDK                                   |
| Symbol:                   | Flrt3                                     |
| Synonyms:                 | RGD1566005                                |
| Mammalian Cell Selection: | Neomycin                                  |
| Vector:                   | pCMV6-Entry (PS100001)                    |
| E. coli Selection:        | Kanamycin (25 ug/mL)                      |



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**ORF Nucleotide Sequence:**

>RR214542 representing NM\_001126291  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGATCAGCCCAGCCTGGAGCCTCTTCCTCATTGGGACGAAAATTGGGCTATTCTTCCAAGTGGCACCTC  
 TGCTGTATGGCTAAATCCTGTCCATCTGTGTGCTGTGACGCAGGTTTCATTTACTGTAATGATCG  
 CTCTCTGACATCCATTCCAGTGGGAATTCGGAGGATGCTACAACACTCTACCTTCAGAACAACCAATA  
 AACAAATGTTGGGATTCCTTCAGATTTGAAGAACTTGCTGAAAGTGCAAAGAATATACCTGTACCACAACA  
 GTTTAGATGAATTTCTACCAACCTTCAAAGTATGTGAAAGAGTTACATTTGCAGGAGAATAACATAAG  
 AACTATCACGTACGATTCACCTTCGAAAATCCCTATCTGGAAGAGTTACACTTGGATGATAATTCAGTC  
 TCGGCTGTAGCATAGAAGAGGGAGCATTTGAGACAGCAACTATCTGCGGCTGCTTTTTCTGTCCCGTA  
 ACCACCTTAGCACAATCCCGGGAGGCTTGCCAGGACTATTGAGGAATTACGCCTAGATGACAATCGCAT  
 ATCAACTATCTTCCCATCGCTTCACGGTCTACAAGCCTGAAACGCCTGGTTTTAGATGGAAACTTG  
 TTGAACAACACCGTTTTGGGTGACAAAGTTTTCTCAACTTAGTAACTTAACAGAACTGTCCTCGTGA  
 GGAATTCCTTGACAGCCGACCCGTGAACCTTCCCGGCACGAGCCTGAGGAAGCTTTACCTCAAGACAA  
 CCATATCAACCGGTACCCCAAATGCTTTTTCTATTTAAGGCAGCTGTATCGACTCGATATGTCCAAT  
 AATAACCTAAGCAATTTACCTCAGGGTATCTTTGATGATTTGGACAATATAACCCAACTGATTCTTCGCA  
 ACAATCCTTGGTATTGTGGGTGCAAGATGAAATGGGTACGAGACTGGTTGCAGTCACTACCTGTGAAGGT  
 CAATGTGCGTGGGCTCATGTGCCAAGCTCCAGAAAAGTCCGTGGAATGGCTATCAAGGACCTCAGTGCA  
 GAACTGTTTGATTGTAAGACAGTGGGATTGTGAGCACCCTCAGATAACCACCGCAATACCTAACACAG  
 CATATCTGTCAAGGACAGTGGCCAGCTCCTGTGACCAACAACAGATATTAACCCCAAGCTCAC  
 TAAGGATCAGCGAACTACAGGCAGTCCCTCACGAAAAACAATTTGATTACTGTGAAGTCTGTACCCCT  
 GACACAATCCACATATCCTGGAGACTTGCTCTGCCTATGACTGCTTTGCGACTCAGCTGGCTTAACTGG  
 GCCACAGCCAGCCTTTGGATCTATAACGGAAACCATCGTAACAGGAGAACGTAGTGAATACTTGGTCAC  
 AGCTCTAGAACCTGAATCACCTATAGAGTATGCATGGTCCCATGGAACACAGTAACCTTTACCTGTTT  
 GATGAACTCCTGTTTGTATTGAGACTCAAACCTGCCCTCTTCGAATGTACAACCCACAACCACCTCA  
 ATCGAGAGCAAGAGAAAGAACCTTACAAAAATCCAAATTTACCTTTGGCCGCCATCATTGGTGGGCTGT  
 GGCCCTGGTAAGCATCGCCCTCCTTGCTTTGGTGTGTTGGTATGTGCATAGGAATGGTCCCTGTTCTCA  
 CGGAACTGCGCGTACAGCAAAGGGAGGAGAGAAAGGATGACTATGCAGAAGCTGCGCACTAAGAAAGACA  
 ACTCCATCCTGGAAATCAGGGAACTTCTTTCCAGATGCTACCGATAAGCAATGAACCCATCTCCAAGGA  
 GGAGTTTGTAAATACACACCATATTTCTCCGAATGGGATGAATCTGTACAAAAACAACCTCAGTGAGAGC  
 AGTAGTAACCGGAGCTACAGAGACAGTGGGATTCAGACTTGACCACCTCACACTCA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RR214542 representing NM\_001126291  
 Red=Cloning site Green=Tags(s)

MISPAWSLFLIGTKIGLFFQVAPLSVMAKSCPSVCRCDAGFIYCNDRSLTSIPVGIPEDATTLYLQNNQI  
 NNVGIPSDLKNLLKVQRIYLYHNSLDEFPTNLPKYVKELHLQENNIRTIYDSLKIPYLEELHLD DNSV  
 SAVSIEEGAFRDSNYLRLLFLSRNHLSTIPGGLPRTIEELRLDDNRISTISSPSLHGLTSLKRLVLDGNL  
 LNNHGLGDKVFFNLVNLTELSVRNSLTAAPVNLPGTSLRKLKYLQDNHINRVPPNAFSYLRQLYRLDMSN  
 NNLSNLPQGI FDDL DNITQLILRNNPWYCGCKMKWVRDWLQSLPVKVNVRGLMCQAPEKVRGMAIKDL SA  
 ELFDCKDSGIVSTVQITTAIPNTAYPAQGWPAVTKQPDIKNPKLTKDQRTTGSPSRKILITVKSVP  
 DTIHISWRALPMTALRLSWLKLGHSPAFGSITETIVTGERSEYLVTALEPESPYRVCMPMETS NLYLF  
 DETPVC IETQTAPLRMYNPTTTLNREQEKEPYKNPNLPLAAIIGGAVALVSIALLALVCWYVHRNGSLFS  
 RNCAYSKGRRRKDDYAEAGTKKDNSILEIRETSFQMLPISNEPISKEEFVIHTIFPPNGMNLKNNLSES  
 SSNRSYRDSGIPDL DSHS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001126291

**ORF Size:** 1947 bp

**OTI Disclaimer:** 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. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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\\_001126291.1](#), [NP\\_001119763.1](#)

**RefSeq Size:** 2846 bp

**RefSeq ORF:** 1950 bp

**Locus ID:** 366205

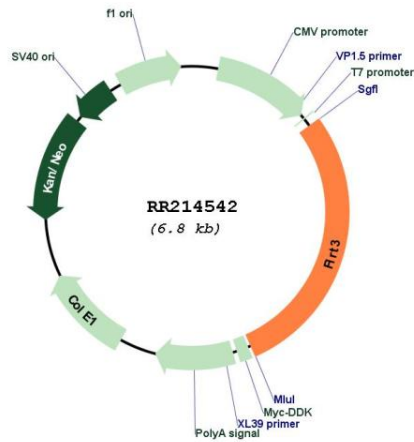
**UniProt ID:** [B1H234](#)

**Cytogenetics:** 3q41

**MW:** 72.9 kDa

**Gene Summary:** Functions in cell-cell adhesion, cell migration and axon guidance, exerting an attractive or repulsive role depending on its interaction partners. Plays a role in the spatial organization of brain neurons. Plays a role in vascular development in the retina (By similarity). 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 (By similarity). Interaction with the intracellular domain of ROBO1 mediates axon attraction towards cells expressing NTN1. 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 (By similarity). Promotes neurite outgrowth (in vitro) (By similarity). Mediates cell-cell contacts that promote an increase both in neurite number and in neurite length (PubMed:15485775). Plays a role in the regulation of the density of glutamergic synapses (PubMed:22405201). Plays a role in fibroblast growth factor-mediated signaling cascades. Required for normal morphogenesis during embryonic development, but not for normal embryonic patterning. Required for normal ventral closure, headfold fusion and definitive endoderm migration during embryonic development. Required for the formation of a normal basement membrane and the maintenance of a normal anterior visceral endoderm during embryonic development (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RR214542